Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804 for:

Kooltherm K10 & K17 Insulation Boards

from

Kingspan Insulation Pty Ltd (Australia)

Programme:	The International EPD® System, www.environdec.com
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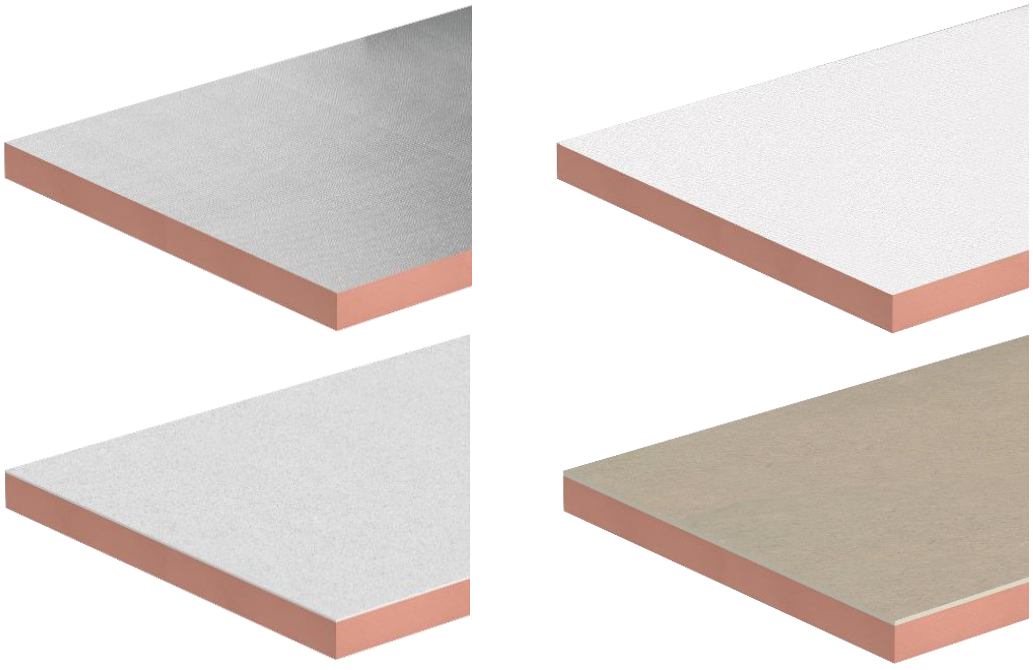
An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com



General information

Programme information

Programme:	EPD Australasia
Address:	EPD Australasia Limited 315a Hardy Street Nelson 7010 New Zealand
Website:	www.epd-australasia.com
E-mail:	info@epd-australasia.com

Accountabilities for PCR, LCA and independent, third-party verification
Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR) 2019:14 Construction products, Version 1.11, 2021-02-05 UN CPC Code: 54650
PCR review was conducted by: *The Technical Committee of the International EPD® System.* A full list of members available on *www.environdec.com for a list of members. The review board may be contacted via info@environdec.com. Review chair: Claudia A. Peña, University of Concepción, Chile.*
Life Cycle Assessment (LCA)
Sazal Kundu, Leah Nguyen, Pasindu Samarakkody and Jessica Cheung Edge Environment Pty Limited Level 5. 39 East Esplanade, Manly NSW 2095 Australia W: www.edgeimpact.global E: info@edgeimpact.global
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ EPD verification by individual verifier Third-party verifier: *Epsten Group, Inc.* *101 Marietta St. NW, Suite 2600, Atlanta, Georgia 30303, USA* *www.epstengroup.com* Approved by: EPD Australasia
Procedure for follow-up of data during EPD validity involves third party verifier: ☒ Yes ☐ No

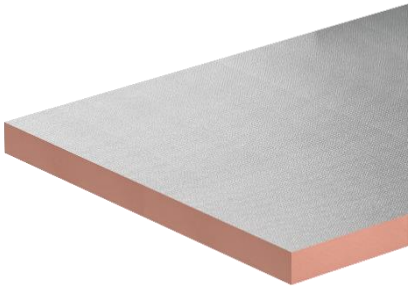
The EPD owner has the sole ownership, liability, and responsibility for the EPD.
EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD: Kingspan Insulation Pty Ltd (Australia)
Contact: David Kidd
Description of the organisation: Kingspan is a global leader in insulation and building envelope solutions. We focus on innovation that makes a difference to the customer, offering high performance rigid insulation, ultra-thin flexible insulation and building wraps.
Product-related or management system-related certifications: [e.g. ISO 14024 Type I environmental labels, ISO 9001- and 14001-certificates, EMAS-registrations, SA 8000, supply chain management and social responsibility]
Name and location of production site(s): Somerton, VIC, Australia

Product information

Product name: Kooltherm K10 G2 Soffit Board



Product description:
Kooltherm K10 G2 is a high performance ceiling insulation board, which is quick and easy to install with NCC and AS/NZS 4859.1:2018 compliance. It has a fibre-free, phenolic core and both an upper tissue-based facing and a lower facing of highly reflective aluminium foil, along with a slim profile.

Product highlights:

- Australian made
- CodeMark certified for NCC compliance
- NCC and AS/NZS 4859.1:2018 compliant
- Group 2 NCC fire classification
- Fibre-free, closed cell insulation core
- Silver finish, also available in white
- No CFC or HCFC used in manufacture

Application
Kooltherm K10 G2 Soffit Board is suitable for roof and floor application.

Dimensions
Board Size: 2400 mm x 1200 mm (2.88 m^2)
Nominal Product Thickness: 25, 30, 40, 50, 60, 70, 80, 90 mm

Product sustainability

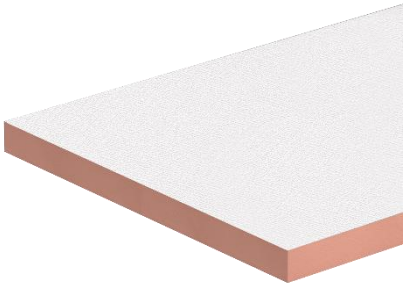
Aspect	Characteristic
Recyclability	Non-contaminated insulation site waste is recyclable, but there are currently no facilities in Australia to process returned material
Re-usability	Re-usable if removed with care (long term of service expected)
Water Use	No water used in Kingspan Insulation's manufacturing process

Blowing Agent Global Warming Potential (GWP	Manufactured with a blowing agent that has low GWP
Blowing Agent Ozone Depletion Potential (ODP)	Manufactured with a CFC/HCFC-free blowing agent that has zero ODP
Packaging	Contains 0% recycled product Polythene wrap and EPS skids 100% recyclable

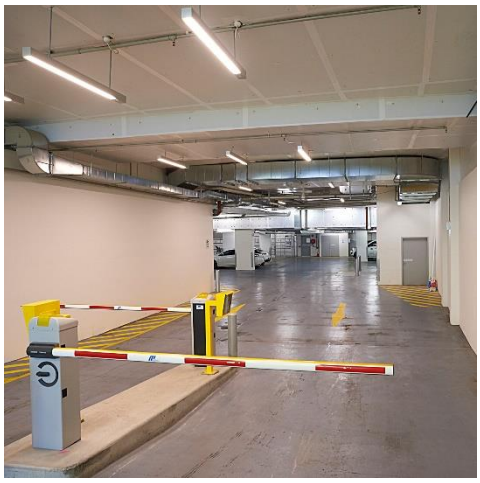
UN CPC code: 54650

Geographical scope: Asia Pacific (Australia, New Zealand, South-East Asia)

Product name: Kooltherm K10 G2W White Soffit Board



Product description:
Kooltherm K10 G2W White is a high performance, quick and easy to install, white-faced insulation board, providing an attractive white finish suitable for ceiling insulation. Kooltherm K10 G2W has a fibre-free, phenolic core and an attractive white foil finish along with a slim profile.



Product highlights:

- Australian made
- CodeMark certified for NCC compliance
- NCC and AS/NZS 4859.1:2018 compliant
- Group 2 NCC fire classification
- Fibre-free, closed cell insulation core
- White finish, also available in silver
- No CFC or HCFC used in manufacture

Application
Kooltherm K10 G2W Soffit Board is suitable for ceiling, roof and floor application.

Dimensions
2400 mm x 1200 mm (2.88 m^2)
Nominal Product Thickness: 25, 30, 40, 50, 60, 70, 80, 90 mm

Product sustainability

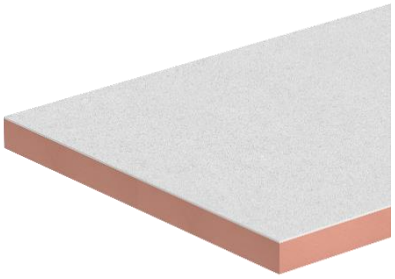
Aspect	Characteristic
Recyclability	Non-contaminated insulation site waste is recyclable, but there are currently no facilities in Australia to process returned material
Re-usability	Re-usable if removed with care (long term of service expected)
Water Use	No water used in Kingspan Insulation's manufacturing process

Blowing Agent Global Warming Potential (GWP	Manufactured with a blowing agent that has low GWP
Blowing Agent Ozone Depletion Potential (ODP)	Manufactured with a CFC/HCFC-free blowing agent that has zero ODP
Packaging	Contains 0% recycled product Polythene wrap and EPS skids 100% recyclable

UN CPC code: 54650

Geographical scope: Asia Pacific (Australia, New Zealand, South-East Asia)

Product name: Kooltherm K10 Plus Soffit Board



Product description:
Kooltherm K10 PLUS Soffit Board is an insulated fibre cement board with a non-combustible building board outer face and is NCC and AS/NZS 4859.1:2018 compliant and Group 1 fire rating. With an impact-resistant, fibre cement outer face, Kooltherm K10 PLUS Soffit Board is an easy to install, thin solution for ceiling insulation.

Product highlights:

- Australian made
- NCC and AS/NZS 4859.1:2018 compliant
- Group 1 NCC fire classification
- Fibre-free, closed cell insulation core
- Non-combustible building board outer face
- Water vapour resistant
- No CFC or HCFC used in manufacture

Application
Kooltherm K10 PLUS Soffit Board is suitable for roof and floor application.

Dimensions
Board Size: 2400 mm x 1200 mm (2.88 m^2)
Nominal Product Thickness: 31, 36, 46, 56, 66, 76, 86, 96 mm

Product sustainability

Aspect	**Characteristic**
Recyclability	Non-contaminated insulation site waste is recyclable, but there are currently no facilities in Australia to process returned material
Re-usability	Re-usable if removed with care (long term of service expected)
Water Use	No water used in Kingspan Insulation's manufacturing process
Blowing Agent Global Warming Potential (GWP	Manufactured with a blowing agent that has low GWP

Blowing Agent Ozone Depletion Potential (ODP)	Manufactured with a CFC/HCFC-free blowing agent that has zero ODP
Packaging	Contains 0% recycled product Polythene wrap and EPS skids 100% recyclable

UN CPC code: 54650

Geographical scope: Asia Pacific (Australia, New Zealand, South-East Asia)

Product name: Kooltherm K17 Insulated Plasterboard

Product description:
Kooltherm K17 is a thin profiled insulated dry-lining plasterboard for adhesive bonding. It is fast & easy to install, suitable for commercial & residential projects. Kooltherm K17 is suitable for buildings that can't be insulated on the outside or where external appearance can't be changed. It is an ideal internal wall insulation solution for new build and retrofit projects and offers a slim profile, thus saving the real estate space of the building envelope while providing thermal comfort.

Product highlights

- Australian made
- CodeMark certified for NCC compliance
- Also used for residential & modular construction
- NCC and AS/NZS 4859.1:2018 compliant
- 3-in-1 insulation, dry lining and vapour control
- Group 1 NCC fire classification
- Fibre-free, closed cell insulation core
- No CFC or HCFC used in manufacture

Application
Kooltherm K17 Insulated Plasterboard is suitable for wall and roof applications. It is used in commercial, residential and modular construction.

Dimensions
Board Size: 2400 mm x 1200 mm (2.88 m^2)
Other dimensions available upon enquiry. Minimum order quantities apply.
Nominal Product Thickness (inc. Plasterboard): 35, 40, 50, 60, 70, 80, 90 mm

Other thicknesses available upon enquiry. Minimum order quantities apply.
Plasterboard Thickness: 10 mm

Alternative lining boards, such as fibre cement sheets, can also be bonded to the insulation core to create customised finishes and facings in our Kingspan Kooltherm K17+ Insulated Lining Board range. Please contact us for more information.

Product sustainability

Aspect	Characteristic
Recyclability	Non-contaminated insulation site waste is recyclable, but there are currently no facilities in Australia to process returned material
Re-usability	Re-usable if removed with care (long term of service expected)
Water Use	No water used in Kingspan Insulation's manufacturing process
Blowing Agent Global Warming Potential (GWP	Manufactured with a blowing agent that has low GWP
Blowing Agent Ozone Depletion Potential (ODP)	Manufactured with a CFC/HCFC-free blowing agent that has zero ODP
Packaging	Contains 0% recycled product Polythene wrap and EPS skids 100% recyclable

UN CPC code: 54650

Geographical scope: Asia Pacific (Australia, New Zealand, South-East Asia)

LCA information

Declared unit: 1 m^2 of installed product
Technical service life: 50 years
Time representativeness: The LCA study was conducted on the calendar year 2021 (01 Jan 2021 to 31 Dec 2021) production data
Database(s) and LCA software used:
The inventory data for the process are entered into the SimaPro (v9.4.0.1) LCA software program and linked to the pre-existing data for the upstream feedstocks and services selected in order of preference from:

- For Australia, the Australian Life Cycle Inventory (AusLCI) v1.39 compiled by the Australian Life Cycle Assessment Society ((ALCAS), 2022) and the Australasian Unit Process LCI v2014.09. The AusLCI database at the time of this report was less than a year old, while the Australasian Unit Process LCI was 7 years old.
- Other authoritative sources (e.g., Ecoinvent v3.8, (Wernet, et al., 2021)), where necessary adapted for relevance to Australian conditions (energy sources, transport distances and modes and so on, and documented to show how the data is adapted for national relevance). At the time of reporting, the Ecoinvent v3.8 database was less than a year old.

Description of system boundaries:
The LCA scope of this EPD is cradle to gate with options, modules A4-A5, modules C1–C4 and module D. The geographical scope of this EPD is Asia Pacific (Australia, New Zealand, South-East Asia).

Table 1 – Life Cycle of building products: stages and modules included in this EPD

GPI Module		Asset life cycle stage	Information module	Declared modules	Specific data	Variation - Products	Variation - sites
Upstream	A1	Raw material supply	A1-3. Manufacturing stage	X	>90%	<10%	Not applicable
Core	A2	Transport		X			
	A3	Manufacturing		X			
Downstream	A4	Transport	A4-5. Installation stage	X	>90%	-	
	A5	Construction, installation process		X	-	-	
	B1	Material emissions from usage	B. Usage stage	ND	-	-	
	B2	Maintenance		ND	-	-	
	B3	Repair		ND	-	-	
	B4	Replacement		ND	-	-	
	B5	Refurbishment		ND	-	-	
	B6	Operational energy use		ND	-	-	
	B7	Operational water use		ND	-	-	
	C1	Deconstruction and demolition	C. End of life	X	-	-	
	C2	Transport		X	-	-	
	C3	Waste processing		X	-	-	
	C4	Disposal		X	-	-	
Resource recovery stage	D	Reuse, recycle or recovery	D. Recyclability potentials	X	-	-	

ND= Not declared

The table is adapted for physical products and may have to be modified when declaring service products.

The following life cycle stages have not been declared, as they are deemed not applicable for Kingspan Insulation product ranges: Material emissions from usage (B1); Maintenance (B2); Repair (B3); Replacement (B4); Refurbishment (B5), Operational energy use (B6) and Operational water use (B7).

System Diagram:

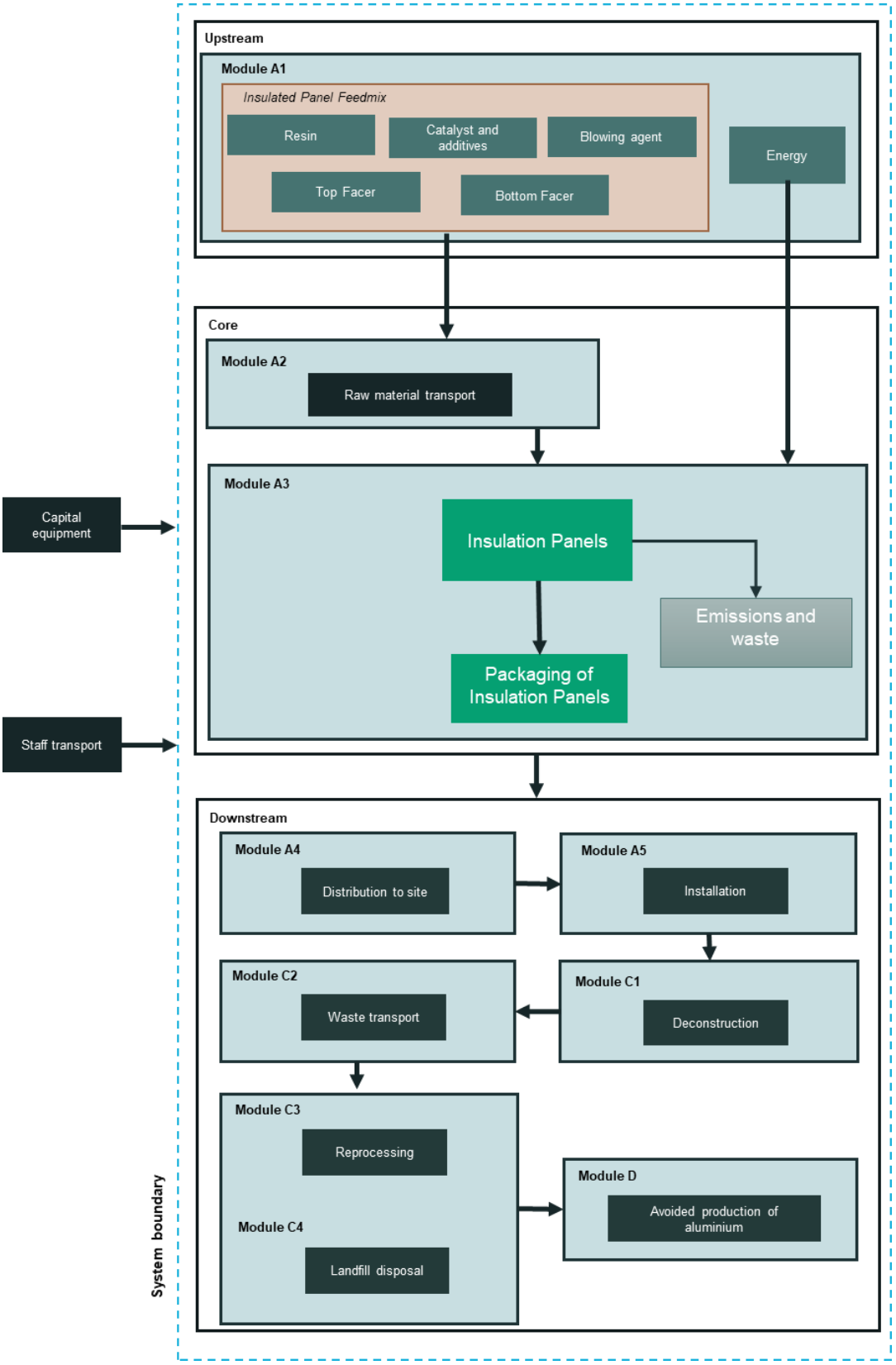


Figure 1 Kingspan Insulation EPD system boundary

Upstream processes

The upstream processes include those involved in Module A1 – Raw material supply. This module includes:

- Extraction, transport and manufacturing of raw materials.
- Generation of electricity from primary and secondary energy resources, also including their extraction, refining and transport for Modules A1 and A3.
- Processing up to the end-of-waste state or disposal of final residues including any packaging not leaving the factory gate with the product

Core Processes

The core processes include those involved in Module A2 and Module A3, including:

- External transportation of materials to the core processes and internal transport.
- Manufacturing of the Kingspan Insulation products.
- Packaging materials

Downstream Processes

The downstream processes include those involved in Module A4 to C4, including:

- Transportation from the production gate to the construction site.
- Transport of waste generated from the construction site.
- Installation of the product on the site.
- Wastage of construction products (additional production processes to compensate for the loss of construction products included in module A1-A3).
- Waste processing of the waste from product wastage during the construction processes up to the end-of-waste state or disposal of final residues.
- Transport of equipment and use of materials for deconstruction at the end of life.
- Transport of waste generated at the end of life.
- Treatment of waste generated at the end of life.

Modules declared, geographical scope, share of specific data (in GWP-GHG indicator) and data variation:

Cut-off rules and Exclusion of Small Amounts

It is common practice in LCA/LCI protocols to propose exclusion limits for inputs and outputs that fall below a threshold % of the total, but with the exception that where the input/output has a “significant” impact it should be included. According to the PCR 2019:14 v1.11, Life cycle inventory data shall according to EN 15804 A2 include a minimum of 95% of total inflows (mass and energy) per module. Inflows not included in the LCA shall be documented in the EPD. Data gaps in included stages in the downstream modules shall be reported in the EPD, including an evaluation of their significance. In accordance with the PCR 2019:14 v1.11, the following system boundaries are applied to manufacturing equipment and employees:

- Environmental impact from infrastructure, construction, production equipment, and tools that are not directly consumed in the production process are not accounted for in the LCI. Capital equipment and buildings typically account for less than a few percent of nearly all LCIs and this is usually smaller than the error in the inventory data itself. For this project, it is assumed that capital equipment makes a negligible contribution to the impacts as per Frischknecht et al. (Frischknecht, 2007) with no further investigation.
- Personnel-related impacts, such as transportation to and from work, are also not accounted for in the LCI. The impacts of employees are also excluded from inventory impacts on the basis that if they were not employed for this production or service function, they would be employed for another. It is very hard to decide what proportion of the impacts from their whole lives should count towards their employment. For this project, the impacts of employees are excluded.

Allocation

In a process step where more than one type of product is generated, it is necessary to allocate the environmental stressors (inputs and outputs) from the process to the different products (functional outputs) in order to get product-based inventory data instead of process-based data. An allocation problem also occurs for multi-input processes. In an allocation procedure, the sum of the allocated inputs and outputs to the products shall be equal to the unallocated inputs and outputs of the unit process.

The following stepwise allocation principles shall be applied for multi-input/output allocations:

- The initial allocation step includes dividing up the system sub-processes and collecting the input and output data related to these sub-processes.
- The first (preferably) allocation procedure step for each sub-process is to partition the inputs and outputs of the system into their different products in a way that reflects the underlying physical relationships between them.
- The second (worst case) allocation procedure step is needed when physical relationship alone cannot be established or used as the basis for allocation. In this case, the remaining environmental inputs and outputs from a sub-process must be allocated between the products in a way that reflects other relationships between them, such as the economic value of the products.

The insulation boards are manufactured in one plant in Somerton, VIC, Australia. Mass and energy data have been sourced from the manufacturing plant by Kingspan Insulation. Mass data was collected for individual insulation boards in CY2021. Energy and utility used as well as waste generated during the production of insulation boards in CY2021 are allocated to insulation boards using mass allocation method.

Data quality and validation

The primary data used for the study (core module) is based on direct utility bills or feedstock quantities from the Kingspan Insulation's procurement records. Primary data was carefully reviewed in order to ensure completeness, accuracy and representativeness of the data supplied. Contribution analysis was used to focus on the key pieces of data contributing to the environmental impact categories. The data was benchmarked against relevant benchmark data in Ecoinvent. Overall, the data was deemed to be of high quality for the core module. The data quality ranking is as follows: geographical representativeness – very good; technical representativeness – very good and time representativeness – very good.

Assumptions, Choices, and Limitations

Table 2 – Key assumptions, choices and limitation for this EPD

Assumption or limitation	Impact on LCA results	Discussion
Insulation material ingredient composition.	Minor	Information obtained from Kingspan Production Team
Board distribution	Minor	Information obtained from Kingspan Production Team
Construction energy	Minor	The insulation boards are manufactured in one plant in Somerton, VIC, Australia. Mass and energy data have been sourced from the manufacturing plant by Kingspan Insulation. Mass data was collected for individual insulation boards in CY2021. Energy and utility used as well as waste generated during the production of insulation boards in CY2021 are allocated to insulation boards using mass allocation method.
Exclusion of employees, capital good and infrastructure	Minor	Personnel-related impacts, such as transportation to and from work, are also not accounted for in the LCI. The impacts of employees are also excluded from inventory impacts on the basis that if they were not employed for this production or service function, they would be employed for another.
Recycling of boards, esp. aluminium, after use.	Medium	100% of insulation material from material recovery processing disposed in landfill. 50% of aluminium sheets (a conservative number based on the latest data) from material recovery processing returned into the aluminium recycling stream.

Compliance with Standards

The methodology and report format has been modified to comply with:

- ISO 14040:2006 and ISO14044:2006+A1:2018 which describe the principles, framework, requirements and provides guidelines for life cycle assessment (LCA).
- ISO 14025:2006 Environmental labels and declarations – Type III environmental declarations -- Principles and procedures, which establishes the principles and specifies the procedures for developing Type III environmental declaration programmes and Type III environmental declarations.
- EN 15804:2012+A1:2013; Sustainability of construction works — Environmental product declarations
- EN 15804:2012+A2:2019; Sustainability of construction works — Environmental product declarations
- Product Category Rules (PCR) 2019:14, v1.1 – Construction products – Hereafter referred to as PCR 2019:14.
- General Programme Instructions (GPI) for the International EPD System V3.01 – containing instructions regarding methodology and the content that must be included in EPDs registered under the International EPD System.
- Instructions of EPD Australasia V3.01 – a regional annex to the general programme instructions of the International EPD System.

Environmental Performance Related Information

The potential environmental impacts, use of resources and waste categories included in this EPD were calculated using the SimaPro v9.4.0.1 tool and are listed in Table 5. All tables from this point will contain the abbreviation only. The LCA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds and safety margins or risks.

Table 3 – Life cycle impact, resource and waste assessment categories, measurements and methods in accordance with EN15804+A2

Impact Category	Abbreviation	Measurement Unit	Assessment Method and Implementation
Potential Environmental Impacts			
Global warming potential (fossil)	GWP - Fossil	kg CO_2 equivalents (GWP100)	Baseline model of 100 years of the IPCC based on IPCC 2013
Global warming potential (biogenic)	GWP - Biogenic	kg CO_2 equivalents (GWP100)	Baseline model of 100 years of the IPCC based on IPCC 2013
Land use/ land transformation	GWP - Luluc	kg CO_2 equivalents (GWP100)	Baseline model of 100 years of the IPCC based on IPCC 2013
Total global warming potential	GWP - Total	kg CO_2 equivalents (GWP100)	Baseline model of 100 years of the IPCC based on IPCC 2013
Acidification potential	AP	mol H^+ eq.	Accumulated Exceedance, Seppälä et al. 2006, Posch et al., 2008

Impact Category	Abbreviation	Measurement Unit	Assessment Method and Implementation
Eutrophication – aquatic freshwater	EP - freshwater	kg P equivalent	EUTREND model, Struijs et al., 2009b, as implemented in ReCiPe[1]
Eutrophication – aquatic marine	EP - marine	kg N equivalent	EUTREND model, Struijs et al., 2009b, as implemented in ReCiPe
Eutrophication – terrestrial	EP – terrestrial	mol N equivalent	Accumulated Exceedance, Seppälä et al. 2006, Posch et al.
Photochemical ozone creation potential	POCP	kg NMVOC equivalents	LOTOS-EUROS, Van Zelm et al., 2008, as applied in ReCiPe
Abiotic depletion potential (elements)*	ADPE	kg Sb equivalents	CML (v4.1)
Abiotic depletion potential (fossil fuels)*	ADPF	MJ net calorific value	CML (v4.1)
Ozone depletion potential	ODP	kg CFC 11 equivalents	Steady-state ODPs, WMO 2014
Water Depletion Potential*	WDP	m^3 equivalent deprived	Available WAter REmaining (AWARE) Boulay et al., 2016
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO_2 equivalents (GWP100)	CML (v4.1)
Resource use			
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ, net calorific value	ecoinvent version 3.6 and expanded by PRé Consultants[2]
Use of renewable primary energy resources used as raw materials	PERM	MJ, net calorific value	Manual for direct inputs[3]
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	PERT	MJ, net calorific value	ecoinvent version 3.6 and expanded by PRé Consultants
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ, net calorific value	Manual for direct inputs[4]
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ, net calorific value	ecoinvent version 3.6 and expanded by PRé Consultants

[1] EN 15804:2012+A2:2019 specifies that the unit for the indicator for Eutrophication aquatic freshwater shall be kg PO4 eq, although the reference given ("EUTREND model, Struijs et al., 2009b, as implemented in ReCiPe") uses the unit kg P eq. This is likely a typographical error in EN 15804, which is expected to be corrected in a future revision. Until this has been corrected, results for Eutrophication aquatic freshwater shall be given in both kg PO4 eq and kg P eq. in the EPD.

[2] Method to calculate Cumulative Energy Demand (CED), based on the method published by Ecoinvent version 2.0 and expanded by PRé Consultants for raw materials available in the SimaPro database.

[3] Calculated based on the lower heating value of renewable raw materials.

[4] Calculated based on the lower heating value of non-renewable raw materials.

Impact Category	Abbreviation	Measurement Unit	Assessment Method and Implementation
Total use of non- renewable primary energy resources (primary energy and primary energy resources used as raw materials)	PENRT	MJ, net calorific value	ecoinvent version 3.6 and expanded by PRé Consultants [5]
Use of secondary material	SM	kg	Manual for direct inputs
Use of renewable secondary fuels	RSF	MJ, net calorific value	Manual for direct inputs
Use of non-renewable secondary fuels	NRSF	MJ, net calorific value	Manual for direct inputs
Use of net fresh water	FW	m^3	ReCiPe 2016
Waste categories			
Hazardous waste disposed	HWD	kg	EDIP 2003 (v1.05)
Non-hazardous waste disposed	NHWD	kg	EDIP 2003 (v1.05) [6]
Radioactive waste disposed/stored	RWD	kg	EDIP 2003 (v1.05)
Additional environmental impact indicators			
Particulate matter	Potential incidence of disease due to PM emissions (PM)	Disease incidence	SETAC-UNEP, Fantke et al. 2016
Ionising radiation - human health**	Potential Human exposure efficiency relative to U235 (IRP)	kBq U-235 eq	Human Health Effect model
Eco-toxicity (freshwater)*	Potential Comparative Toxic Unit for ecosystems (ETP-fw)	CTUe	USEtox
Human toxicity potential - cancer effects*	Potential Comparative Toxic Unit for humans (HTP-c)	CTUh	USEtox
Human toxicity potential - non cancer effects*	Potential Comparative Toxic Unit for humans (HTP-nc)	CTUh	USEtox
Soil quality*	Potential soil quality index (SQP)	dimensionless	Soil quality index (LANCA®)

**Disclaimer – The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.*

[5] Calculated as sum of *Non-renewable, fossil*, *Non-renewable, nuclear* and *Non-renewable, biomass*.
[6] Calculated as sum of *Bulk waste* and *Slags/ash*.

***Disclaimer – This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.*

Table 4 – Environmental impact indicators in accordance with EN15804+A1

Impact Category	Abbreviation	Measurement Unit (eq. = equivalence)	Assessment Method and Implementation
Global warming potential (GWP100)	GWP	kg CO_2 eq.	CML (v4.02) based on IPCC AR4
Ozone depletion potential	ODP	kg CFC 11 eq.	CML (v4.02) based on WMO 1999
Acidification potential	AP	kg SO_2 e eq.	CML (v4.02)
Eutrophication potential	EP	kg PO_4^{3-} eq.	CML (v4.02)
Photochemical ozone creation potential	POCP	kg C_2H_4 eq.	CML (v4.2)
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq.	CML (v4.2)
Abiotic depletion potential for fossil resources	ADPF	MJ net calorific value	CML (v4.2)

Content information

Product Stage (A1-A3)

Table 6 shows the material related data for various duct series, while Figure 3 and Figure 4 highlight the proportion of materials used in manufacturing and packaging.

Table 5 – Materials used for manufacturing of Kingspan Insulation boards

Item	Mass (%)	Post-consumer material (%)	Renewable material (%)
Resin	70-80	0	0
Catalyst	15-20	0	0
Facing materials and chemicals	5-10	0	0

Electricity mix

Background dataset from AusLCI was used in the LCA. The electricity mix in this dataset accounts brown coal-based power, hydropower, wind power, photovoltaic power with contributions of 83.14, 6.51, 6.49 and 2.57%, respectively as well as minor contributions from biomass residue, biogass and natural gas based power generation systems.

Biogenic carbon

There's no biogenic carbon in product and its packaging as it doesn't contain any biological material.

Additional information on release of dangerous substances to indoor air, soil and water

The products are highly inert and are used predominantly in outdoor applications. They do not release any dangerous substances to indoor air, soil, or water.

Transport (Module A4)

The transport distances in the following table from manufacturing gate were calculated based on primary data from Kingspan Insulation's percentage of total products shipped to each location. The transport data presented in Table xx is per m2 product installed. The following are conservative average transport distance assumptions:

Table 6 – Distribution distance for all boards

Board	Local road distance (km)	Regional road distance (km)	Domestic Sea distance (km)	International Sea distance (km)
K10 G2 Top Facer	40	364	299	593
K10 G2 White Top Facer	40	364	299	593
K10 SG Top Facer	40	364	299	593
K10 Plus	40	364	299	593
K17	42	408	297	219

Deconstruction and End of Life (Modules C1 – C4)

Following the use of the boards, Kingspan has limited evidence of the end-of-life fate of boards. The recommended cradle to grave environmental profile will be based on the most common scenario as boards are deconstructed and transported to material recovery facilities. The aluminium is recovered and returned into the recycling stream, while the insulation material is diverted to landfill.

The following assumptions have been used in this study to model board deconstruction and end of life scenarios:

- None of the materials from K10 Plus boards are recovered, and 100% of materials are diverted to landfill.
- Diesel fuel consumption for deconstruction has been calculated based on the gravitational potential energy required to lift a typical board 10m above ground, assuming 15% diesel energy conversion into effective work.
- 6% of the boards are assumed to be discarded during deconstruction and disposed in landfill.
- 50km delivery distance to landfill, material recovery facility is assumed for waste collection process.
- Material recovery processing is modelled including collection, sorting and processing aluminium scrap in ecoinvent database, assuming
    - 100% of insulation material from material recovery processing disposed in landfill
    - 50% of aluminium sheets from material recovery processing returned into the aluminium recycling stream.

Benefits and loads beyond the system boundary (Module D)

The information in module D may contain technical information as well as LCA results from post-consumer recycling, i.e., environmental benefits or loads resulting from reusable products, recyclable materials and/or useful energy carriers leaving a product system e.g., as secondary materials or fuels. Avoided impacts from co-products from module A to C shall not be included in Module D.
The recovery rate after use is 94%, as mentioned in the previous section, and 100% aluminium is recycled.

Environmental Performance

K10 G2 Top Facer 25 mm

Table 7 – Environmental impacts per m^2 of installed K10 G2 Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	6.22E+00	7.01E-02	5.53E-04	7.49E-05	2.49E-02	1.39E-02	8.15E-03	-3.28E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	1.36E-02	7.59E-06	6.88E-08	-3.60E-09	2.01E-06	1.49E-05	7.29E-08	1.01E-03
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	5.37E-03	4.75E-06	3.81E-09	3.90E-10	2.25E-07	9.80E-08	7.91E-08	-3.21E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	6.24E+00	7.01E-02	7.49E-05	7.49E-05	2.49E-02	1.39E-02	8.15E-03	-3.30E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	2.64E-07	9.72E-09	1.16E-11	1.16E-11	3.17E-09	1.92E-09	2.98E-09	-2.00E-08
Acidification potential	AP	mol H^+ eq.	3.92E-02	6.14E-04	4.55E-06	7.90E-07	1.91E-04	8.85E-05	6.44E-05	-5.13E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.30E-03	2.07E-06	1.94E-08	3.60E-09	9.95E-07	1.05E-06	6.18E-07	-5.57E-04
Eutrophication – marine	EP - M	kg N eq.	6.80E-03	1.20E-04	1.44E-06	3.40E-07	5.05E-05	1.94E-05	2.66E-05	-7.22E-04
Eutrophication – terrestrial	EP - T	mol N eq.	7.41E-02	1.33E-03	1.58E-05	3.72E-06	5.53E-04	2.17E-04	2.91E-04	-8.62E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	2.59E-02	3.44E-04	8.96E-07	8.96E-07	1.38E-04	5.40E-05	7.09E-05	-2.02E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	5.12E-05	1.91E-07	1.93E-09	1.17E-11	1.25E-07	1.05E-07	8.45E-09	-2.59E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.09E+02	8.28E-01	5.81E-03	1.05E-03	3.05E-01	1.85E-01	2.06E-01	-3.16E+00
Water Depletion Potential	WDP	m^3	6.89E+01	5.64E-02	6.01E-03	1.08E-03	2.88E-01	4.99E-03	3.81E-01	-4.21E-02

Table 8 – Use of resources per m^2 of installed K10 G2 Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	4.13E+00	9.00E-03	8.05E-05	4.25E-06	4.37E-03	3.85E-03	1.62E-03	-1.26E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	4.13E+00	9.00E-03	8.05E-05	4.25E-06	4.37E-03	3.85E-03	1.62E-03	-1.26E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.16E+02	8.74E-01	6.12E-03	1.11E-03	3.22E-01	1.94E-01	2.18E-01	-3.36E+00

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	9.36E-01	0.00E+00	-9.36E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.17E+02	8.74E-01	-9.30E-01	1.11E-03	3.22E-01	1.94E-01	2.18E-01	-3.36E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	3.09E-02	1.20E-04	9.08E-07	6.78E-08	5.35E-05	3.66E-05	1.15E-04	1.20E-04

Table 9 – Waste generated per m^2 of installed K10 G2 Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	4.25E-04	1.06E-06	7.74E-09	5.37E-10	4.72E-07	1.05E-04	8.06E-08	-5.66E-04
Non-hazardous waste disposed	NHWD	kg	6.18E-01	7.81E-03	2.23E-02	6.89E-07	2.69E-03	1.80E-03	1.11E+00	-7.86E-02
Radioactive waste disposed/stored	RWD	kg	1.09E-04	4.26E-07	3.37E-10	3.09E-10	1.87E-09	2.87E-09	9.98E-08	-9.17E-06

Table 10 – Output flows generated per m^2 of installed K10 G2 Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 11 – Additional environmental impact per m^2 of installed K10 G2 Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	5.94E+00	6.90E-02	5.43E-04	7.39E-05	2.44E-02	1.37E-02	7.88E-03	-3.21E-01
Particulate matter	PM	disease incidence	4.04E-07	4.62E-09	2.06E-11	2.06E-11	1.45E-09	1.07E-09	1.22E-09	3.39E-08
Ionising radiation - human health	IRP	kBq U-235 eq	3.44E-01	3.10E-04	2.13E-06	2.13E-06	1.33E-05	2.02E-05	7.25E-04	-1.63E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.33E+02	7.11E-01	5.30E-03	5.45E-04	1.84E-01	1.73E-01	7.70E-02	-6.13E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.49E-08	2.14E-11	1.54E-13	1.23E-14	8.16E-12	4.42E-12	2.90E-12	-5.31E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.15E-07	7.40E-10	5.63E-12	5.45E-13	2.62E-10	2.36E-10	7.26E-11	-3.44E-08
Soil quality	SQP	Pt	1.12E+01	2.14E-01	2.36E-03	1.40E-04	1.43E-01	5.10E-02	3.43E-01	-1.29E+00

Table 12 – Environmental impacts per m^2 of installed K10 G2 Top Facer 25 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	6.06E+00	6.88E-02	5.44E-04	7.41E-05	2.45E-02	1.37E-02	7.97E-03	-3.22E-01
Ozone layer depletion	ODP	kg CFC-11 eq	2.41E-07	7.69E-09	4.73E-11	9.21E-12	2.51E-09	1.52E-09	2.36E-09	-1.57E-08
Acidification potential	AP	kg SO2 eq	2.97E-02	3.02E-04	2.46E-06	5.68E-07	9.36E-05	4.49E-05	4.68E-05	-4.28E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	6.41E-03	5.54E-05	5.84E-07	1.33E-07	2.20E-05	1.11E-05	1.15E-05	-1.97E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	2.81E-03	1.63E-05	1.31E-07	1.46E-08	6.02E-06	2.82E-06	1.72E-06	-1.97E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	5.12E-05	1.91E-07	1.93E-09	1.17E-11	1.25E-07	1.05E-07	8.47E-09	-2.59E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.23E+02	1.03E+00	7.67E-03	1.02E-03	3.47E-01	2.00E-01	1.96E-01	-3.83E+00

K10 G2 Top Facer 30 mm

Table 13 – Environmental impacts per m^2 of installed K10 G2 Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	6.09E+00	7.72E-02	2.80E-04	8.25E-05	2.74E-02	1.39E-02	9.07E-03	-3.28E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	1.34E-02	8.35E-06	2.59E-08	-3.97E-09	2.22E-06	1.49E-05	8.11E-08	1.01E-03
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	5.51E-03	5.23E-06	1.84E-09	4.30E-10	2.48E-07	9.80E-08	8.80E-08	-3.21E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	6.11E+00	7.72E-02	8.25E-05	8.25E-05	2.75E-02	1.39E-02	9.07E-03	-3.30E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	2.81E-07	1.07E-08	1.28E-11	1.28E-11	3.49E-09	1.92E-09	3.31E-09	-2.00E-08
Acidification potential	AP	mol H^+ eq.	3.86E-02	6.76E-04	2.42E-06	8.70E-07	2.11E-04	8.85E-05	7.17E-05	-5.13E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.36E-03	2.28E-06	1.05E-08	3.97E-09	1.10E-06	1.05E-06	6.88E-07	-5.57E-04
Eutrophication – marine	EP - M	kg N eq.	6.34E-03	1.32E-04	8.29E-07	3.74E-07	5.56E-05	1.94E-05	2.96E-05	-7.22E-04
Eutrophication – terrestrial	EP - T	mol N eq.	6.91E-02	1.46E-03	9.08E-06	4.10E-06	6.09E-04	2.17E-04	3.24E-04	-8.62E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	2.52E-02	3.79E-04	9.87E-07	9.87E-07	1.52E-04	5.40E-05	7.89E-05	-2.02E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	5.45E-05	2.10E-07	8.03E-10	1.28E-11	1.38E-07	1.05E-07	9.40E-09	-2.59E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.12E+02	9.12E-01	3.11E-03	1.15E-03	3.36E-01	1.85E-01	2.29E-01	-3.16E+00
Water Depletion Potential	WDP	m^3	6.91E+01	6.21E-02	3.22E-03	1.19E-03	3.17E-01	4.99E-03	4.24E-01	-4.21E-02

Table 14 – Use of resources per m² of installed K10 G2 Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	3.88E+00	9.91E-03	3.61E-05	4.68E-06	4.81E-03	3.85E-03	1.81E-03	-1.26E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	3.88E+00	9.91E-03	3.61E-05	4.68E-06	4.81E-03	3.85E-03	1.81E-03	-1.26E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.19E+02	9.62E-01	3.29E-03	1.22E-03	3.54E-01	1.94E-01	2.43E-01	-3.36E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.86E-01	0.00E+00	-3.86E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.20E+02	9.62E-01	-3.83E-01	1.22E-03	3.54E-01	1.94E-01	2.43E-01	-3.36E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	3.29E-02	1.32E-04	4.21E-07	7.47E-08	5.89E-05	3.66E-05	1.28E-04	1.20E-04

Table 15 – Waste generated per m² of installed K10 G2 Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	4.31E-04	1.16E-06	3.56E-09	5.92E-10	5.20E-07	1.05E-04	8.97E-08	-5.66E-04
Non-hazardous waste disposed	NHWD	kg	6.21E-01	8.60E-03	9.18E-03	7.59E-07	2.96E-03	1.80E-03	1.23E+00	-7.86E-02
Radioactive waste disposed/stored	RWD	kg	1.14E-04	4.69E-07	3.52E-10	3.40E-10	2.06E-09	2.87E-09	1.11E-07	-9.17E-06

Table 16 – Output flows generated per m² of installed K10 G2 Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 17 – Additional environmental impact per m^2 of installed K10 G2 Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	5.79E+00	7.60E-02	2.75E-04	8.14E-05	2.69E-02	1.37E-02	8.76E-03	-3.21E-01
Particulate matter	PM	disease incidence	4.03E-07	5.08E-09	2.26E-11	2.26E-11	1.59E-09	1.07E-09	1.36E-09	3.39E-08
Ionising radiation - human health	IRP	kBq U-235 eq	3.55E-01	3.41E-04	2.35E-06	2.35E-06	1.46E-05	2.02E-05	8.07E-04	-1.63E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.41E+02	7.83E-01	2.56E-03	6.01E-04	2.03E-01	1.73E-01	8.57E-02	-6.13E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.59E-08	2.35E-11	7.20E-14	1.36E-14	8.99E-12	4.42E-12	3.22E-12	-5.31E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.25E-07	8.15E-10	2.69E-12	6.00E-13	2.89E-10	2.36E-10	8.08E-11	-3.44E-08
Soil quality	SQP	Pt	1.15E+01	2.36E-01	1.07E-03	1.55E-04	1.57E-01	5.10E-02	3.82E-01	-1.29E+00

Table 18 – Environmental impacts per m^2 of installed K10 G2 Top Facer 30 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	5.92E+00	7.57E-02	2.75E-04	8.16E-05	2.70E-02	1.37E-02	8.87E-03	-3.22E-01
Ozone layer depletion	ODP	kg CFC-11 eq	2.56E-07	8.47E-09	2.58E-11	1.01E-11	2.76E-09	1.52E-09	2.63E-09	-1.57E-08
Acidification potential	AP	kg SO2 eq	3.07E-02	3.33E-04	1.41E-06	6.25E-07	1.03E-04	4.49E-05	5.21E-05	-4.28E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	6.45E-03	6.10E-05	3.32E-07	1.46E-07	2.43E-05	1.11E-05	1.28E-05	-1.97E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	2.99E-03	1.79E-05	6.41E-08	1.60E-08	6.63E-06	2.82E-06	1.92E-06	-1.97E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	5.45E-05	2.10E-07	8.03E-10	1.29E-11	1.38E-07	1.05E-07	9.43E-09	-2.59E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.25E+02	1.13E+00	3.86E-03	1.12E-03	3.82E-01	2.00E-01	2.18E-01	-3.83E+00

K10 G2 Top Facer 40 mm

Table 19 – Environmental impacts per m^2 of installed K10 G2 Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	7.67E+00	9.67E-02	6.64E-04	1.03E-04	3.44E-02	1.39E-02	1.16E-02	-3.28E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	1.55E-02	1.05E-05	7.99E-08	-4.97E-09	2.78E-06	1.49E-05	1.04E-07	1.01E-03
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	6.26E-03	6.55E-06	4.55E-09	5.38E-10	3.10E-07	9.80E-08	1.12E-07	-3.21E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	7.69E+00	9.67E-02	1.03E-04	1.03E-04	3.44E-02	1.39E-02	1.16E-02	-3.30E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	3.30E-07	1.34E-08	1.60E-11	1.60E-11	4.37E-09	1.92E-09	4.23E-09	-2.00E-08
Acidification potential	AP	mol H^+ eq.	4.89E-02	8.47E-04	5.49E-06	1.09E-06	2.64E-04	8.85E-05	9.16E-05	-5.13E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.59E-03	2.85E-06	2.35E-08	4.97E-09	1.37E-06	1.05E-06	8.79E-07	-5.57E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Eutrophication – marine	EP - M	kg N eq.	8.26E-03	1.65E-04	1.76E-06	4.69E-07	6.96E-05	1.94E-05	3.78E-05	-7.22E-04
Eutrophication – terrestrial	EP - T	mol N eq.	8.98E-02	1.83E-03	1.93E-05	5.13E-06	7.62E-04	2.17E-04	4.14E-04	-8.62E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	3.23E-02	4.75E-04	1.24E-06	1.24E-06	1.90E-04	5.40E-05	1.01E-04	-2.02E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	6.45E-05	2.63E-07	2.26E-09	1.61E-11	1.72E-07	1.05E-07	1.20E-08	-2.59E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.40E+02	1.14E+00	7.03E-03	1.44E-03	4.21E-01	1.85E-01	2.92E-01	-3.16E+00
Water Depletion Potential	WDP	m^3	7.01E+01	7.77E-02	7.27E-03	1.49E-03	3.97E-01	4.99E-03	5.41E-01	-4.21E-02

Table 20 – Use of resources per m^2 of installed K10 G2 Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	4.99E+00	1.24E-02	9.53E-05	5.86E-06	6.02E-03	3.85E-03	2.31E-03	-1.26E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	4.99E+00	1.24E-02	9.53E-05	5.86E-06	6.02E-03	3.85E-03	2.31E-03	-1.26E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.49E+02	1.21E+00	7.41E-03	1.53E-03	4.43E-01	1.94E-01	3.11E-01	-3.36E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	1.10E+00	0.00E+00	-1.10E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.50E+02	1.21E+00	-1.09E+00	1.53E-03	4.43E-01	1.94E-01	3.11E-01	-3.36E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	4.10E-02	1.65E-04	1.08E-06	9.35E-08	7.38E-05	3.66E-05	1.63E-04	1.20E-04

Table 21 – Waste generated per m^2 of installed K10 G2 Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	4.45E-04	1.46E-06	9.19E-09	7.41E-10	6.51E-07	1.05E-04	1.15E-07	-5.66E-04
Non-hazardous waste disposed	NHWD	kg	7.16E-01	1.08E-02	2.61E-02	9.50E-07	3.70E-03	1.80E-03	1.58E+00	-7.86E-02
Radioactive waste disposed/stored	RWD	kg	1.31E-04	5.88E-07	4.59E-10	4.26E-10	2.57E-09	2.87E-09	1.42E-07	-9.17E-06

Table 22 – Output flows generated per m^2 of installed K10 G2 Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 23 – Additional environmental impact per m^2 of installed K10 G2 Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	7.31E+00	9.51E-02	6.51E-04	1.02E-04	3.37E-02	1.37E-02	1.12E-02	-3.21E-01
Particulate matter	PM	disease incidence	4.79E-07	6.37E-09	2.83E-11	2.83E-11	1.99E-09	1.07E-09	1.73E-09	3.39E-08
Ionising radiation - human health	IRP	kBq U-235 eq	3.99E-01	4.27E-04	2.94E-06	2.94E-06	1.83E-05	2.02E-05	1.03E-03	-1.63E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.68E+02	9.81E-01	6.33E-03	7.52E-04	2.54E-01	1.73E-01	1.09E-01	-6.13E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.92E-08	2.95E-11	1.83E-13	1.70E-14	1.13E-11	4.42E-12	4.12E-12	-5.31E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.51E-07	1.02E-09	6.71E-12	7.52E-13	3.62E-10	2.36E-10	1.03E-10	-3.44E-08
Soil quality	SQP	Pt	1.37E+01	2.96E-01	2.80E-03	1.94E-04	1.97E-01	5.10E-02	4.88E-01	-1.29E+00

Table 24 – Environmental impacts per m^2 of installed K10 G2 Top Facer 40 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	7.46E+00	9.48E-02	6.53E-04	1.02E-04	3.38E-02	1.37E-02	1.13E-02	-3.22E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.01E-07	1.06E-08	5.74E-11	1.27E-11	3.46E-09	1.52E-09	3.35E-09	-1.57E-08
Acidification potential	AP	kg SO2 eq	3.74E-02	4.17E-04	3.00E-06	7.83E-07	1.29E-04	4.49E-05	6.65E-05	-4.28E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	7.83E-03	7.64E-05	7.12E-07	1.83E-07	3.04E-05	1.11E-05	1.63E-05	-1.97E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	3.66E-03	2.24E-05	1.57E-07	2.01E-08	8.30E-06	2.82E-06	2.45E-06	-1.97E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	6.45E-05	2.63E-07	2.26E-09	1.62E-11	1.72E-07	1.05E-07	1.20E-08	-2.59E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.58E+02	1.42E+00	9.21E-03	1.40E-03	4.79E-01	2.00E-01	2.78E-01	-3.83E+00

K10 G2 Top Facer 45 mm

Table 25 – Environmental impacts per m^2 of installed K10 G2 Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	7.61E+00	1.08E-01	2.72E-04	1.16E-04	3.85E-02	1.39E-02	1.31E-02	-3.28E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	1.53E-02	1.17E-05	1.81E-08	-5.57E-09	3.11E-06	1.49E-05	1.17E-07	1.01E-03
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	6.55E-03	7.34E-06	1.72E-09	6.03E-10	3.48E-07	9.80E-08	1.27E-07	-3.21E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	7.63E+00	1.08E-01	1.16E-04	1.16E-04	3.85E-02	1.39E-02	1.31E-02	-3.30E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	3.56E-07	1.50E-08	1.80E-11	1.80E-11	4.90E-09	1.92E-09	4.78E-09	-2.00E-08
Acidification potential	AP	mol H^+ eq.	4.83E-02	9.49E-04	2.45E-06	1.22E-06	2.96E-04	8.85E-05	1.04E-04	-5.13E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.72E-03	3.20E-06	1.07E-08	5.57E-09	1.54E-06	1.05E-06	9.93E-07	-5.57E-04
Eutrophication – marine	EP - M	kg N eq.	7.72E-03	1.85E-04	8.87E-07	5.25E-07	7.81E-05	1.94E-05	4.27E-05	-7.22E-04
Eutrophication – terrestrial	EP - T	mol N eq.	8.39E-02	2.06E-03	9.70E-06	5.75E-06	8.55E-04	2.17E-04	4.68E-04	-8.62E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	3.19E-02	5.32E-04	1.39E-06	1.39E-06	2.13E-04	5.40E-05	1.14E-04	-2.02E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	7.01E-05	2.95E-07	6.45E-10	1.80E-11	1.93E-07	1.05E-07	1.36E-08	-2.59E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.47E+02	1.28E+00	3.17E-03	1.62E-03	4.72E-01	1.85E-01	3.30E-01	-3.16E+00
Water Depletion Potential	WDP	m^3	7.05E+01	8.71E-02	3.28E-03	1.67E-03	4.45E-01	4.99E-03	6.12E-01	-4.21E-02

Table 26 – Use of resources per m^2 of installed K10 G2 Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	4.69E+00	1.39E-02	3.15E-05	6.57E-06	6.75E-03	3.85E-03	2.61E-03	-1.26E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	4.69E+00	1.39E-02	3.15E-05	6.57E-06	6.75E-03	3.85E-03	2.61E-03	-1.26E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.57E+02	1.35E+00	3.36E-03	1.72E-03	4.97E-01	1.94E-01	3.51E-01	-3.36E+00

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.06E-01	0.00E+00	-3.06E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.57E+02	1.35E+00	-3.03E-01	1.72E-03	4.97E-01	1.94E-01	3.51E-01	-3.36E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	4.47E-02	1.85E-04	3.79E-07	1.05E-07	8.27E-05	3.66E-05	1.85E-04	1.20E-04

Table 27 – Waste generated per m^2 of installed K10 G2 Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	4.53E-04	1.63E-06	3.19E-09	8.30E-10	7.29E-07	1.05E-04	1.30E-07	-5.66E-04
Non-hazardous waste disposed	NHWD	kg	7.28E-01	1.21E-02	7.29E-03	1.06E-06	4.15E-03	1.80E-03	1.78E+00	-7.86E-02
Radioactive waste disposed/stored	RWD	kg	1.39E-04	6.58E-07	4.86E-10	4.77E-10	2.88E-09	2.87E-09	1.60E-07	-9.17E-06

Table 28 – Output flows generated per m^2 of installed K10 G2 Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 29 – Additional environmental impact per m^2 of installed K10 G2 Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	7.23E+00	1.07E-01	2.68E-04	1.14E-04	3.77E-02	1.37E-02	1.27E-02	-3.21E-01
Particulate matter	PM	disease incidence	4.80E-07	7.13E-09	3.18E-11	3.18E-11	2.23E-09	1.07E-09	1.96E-09	3.39E-08
Ionising radiation - human health	IRP	kBq U-235 eq	4.20E-01	4.78E-04	3.30E-06	3.30E-06	2.05E-05	2.02E-05	1.16E-03	-1.63E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.82E+02	1.10E+00	2.40E-03	8.43E-04	2.85E-01	1.73E-01	1.24E-01	-6.13E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.12E-08	3.30E-11	6.54E-14	1.90E-14	1.26E-11	4.42E-12	4.66E-12	-5.31E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.61E-07	1.14E-09	2.50E-12	8.43E-13	4.05E-10	2.36E-10	1.17E-10	-3.44E-08
Soil quality	SQP	Pt	1.45E+01	3.31E-01	9.44E-04	2.17E-04	2.21E-01	5.10E-02	5.52E-01	-1.29E+00

Table 30 – Environmental impacts per m^2 of installed K10 G2 Top Facer 45 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	7.39E+00	1.06E-01	2.68E-04	1.15E-04	3.78E-02	1.37E-02	1.28E-02	-3.22E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.25E-07	1.19E-08	2.67E-11	1.42E-11	3.87E-09	1.52E-09	3.79E-09	-1.57E-08
Acidification potential	AP	kg SO2 eq	3.89E-02	4.67E-04	1.50E-06	8.78E-07	1.45E-04	4.49E-05	7.52E-05	-4.28E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	8.01E-03	8.56E-05	3.52E-07	2.05E-07	3.41E-05	1.11E-05	1.84E-05	-1.97E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	4.00E-03	2.51E-05	6.07E-08	2.25E-08	9.30E-06	2.82E-06	2.77E-06	-1.97E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	7.02E-05	2.95E-07	6.45E-10	1.81E-11	1.93E-07	1.05E-07	1.36E-08	-2.59E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.64E+02	1.59E+00	3.75E-03	1.57E-03	5.37E-01	2.00E-01	3.15E-01	-3.83E+00

K10 G2 Top Facer 50 mm

Table 31 – Environmental impacts per m^2 of installed K10 G2 Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	8.85E+00	1.22E-01	6.26E-04	1.31E-04	4.34E-02	1.39E-02	1.49E-02	-3.28E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	1.69E-02	1.32E-05	6.88E-08	-6.28E-09	3.51E-06	1.49E-05	1.33E-07	1.01E-03
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	7.08E-03	8.27E-06	4.22E-09	6.80E-10	3.92E-07	9.80E-08	1.44E-07	-3.21E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	8.88E+00	1.22E-01	1.30E-04	1.30E-04	4.34E-02	1.39E-02	1.49E-02	-3.30E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	3.85E-07	1.69E-08	2.02E-11	2.02E-11	5.52E-09	1.92E-09	5.44E-09	-2.00E-08
Acidification potential	AP	mol H^+ eq.	5.58E-02	1.07E-03	5.27E-06	1.38E-06	3.34E-04	8.85E-05	1.18E-04	-5.13E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.87E-03	3.61E-06	2.26E-08	6.28E-09	1.73E-06	1.05E-06	1.13E-06	-5.57E-04
Eutrophication – marine	EP - M	kg N eq.	9.29E-03	2.09E-04	1.74E-06	5.92E-07	8.80E-05	1.94E-05	4.86E-05	-7.22E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.01E-01	2.32E-03	1.90E-05	6.49E-06	9.64E-04	2.17E-04	5.32E-04	-8.62E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	3.75E-02	6.00E-04	1.56E-06	1.56E-06	2.40E-04	5.40E-05	1.29E-04	-2.02E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	7.66E-05	3.32E-07	2.01E-09	2.03E-11	2.18E-07	1.05E-07	1.54E-08	-2.59E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.68E+02	1.44E+00	6.76E-03	1.82E-03	5.32E-01	1.85E-01	3.76E-01	-3.16E+00
Water Depletion Potential	WDP	m^3	7.12E+01	9.83E-02	7.00E-03	1.89E-03	5.02E-01	4.99E-03	6.95E-01	-4.21E-02

Table 32 – Use of resources per m² of installed K10 G2 Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	5.58E+00	1.57E-02	8.65E-05	7.41E-06	7.61E-03	3.85E-03	2.96E-03	-1.26E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	5.58E+00	1.57E-02	8.65E-05	7.41E-06	7.61E-03	3.85E-03	2.96E-03	-1.26E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.79E+02	1.52E+00	7.13E-03	1.94E-03	5.60E-01	1.94E-01	3.99E-01	-3.36E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	9.71E-01	0.00E+00	-9.71E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.80E+02	1.52E+00	-9.64E-01	1.94E-03	5.60E-01	1.94E-01	3.99E-01	-3.36E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	5.05E-02	2.09E-04	9.89E-07	1.18E-07	9.33E-05	3.66E-05	2.10E-04	1.20E-04

Table 33 – Waste generated per m² of installed K10 G2 Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	4.62E-04	1.84E-06	8.41E-09	9.36E-10	8.22E-07	1.05E-04	1.47E-07	-5.66E-04
Non-hazardous waste disposed	NHWD	kg	7.99E-01	1.36E-02	2.31E-02	1.20E-06	4.68E-03	1.80E-03	2.02E+00	-7.86E-02
Radioactive waste disposed/stored	RWD	kg	1.51E-04	7.43E-07	5.68E-10	5.38E-10	3.25E-09	2.87E-09	1.82E-07	-9.17E-06

Table 34 – Output flows generated per m² of installed K10 G2 Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 35 – Additional environmental impact per m^2 of installed K10 G2 Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	8.42E+00	1.20E-01	6.15E-04	1.29E-04	4.25E-02	1.37E-02	1.44E-02	-3.21E-01
Particulate matter	PM	disease incidence	5.35E-07	8.05E-09	3.58E-11	3.58E-11	2.52E-09	1.07E-09	2.23E-09	3.39E-08
Ionising radiation - human health	IRP	kBq U-235 eq	4.49E-01	5.39E-04	3.72E-06	3.72E-06	2.31E-05	2.02E-05	1.32E-03	-1.63E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.00E+02	1.24E+00	5.88E-03	9.50E-04	3.21E-01	1.73E-01	1.41E-01	-6.13E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.35E-08	3.73E-11	1.69E-13	2.15E-14	1.42E-11	4.42E-12	5.29E-12	-5.31E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.73E-07	1.29E-09	6.22E-12	9.50E-13	4.57E-10	2.36E-10	1.33E-10	-3.44E-08
Soil quality	SQP	Pt	1.60E+01	3.74E-01	2.55E-03	2.45E-04	2.49E-01	5.10E-02	6.27E-01	-1.29E+00

Table 36– Environmental impacts per m^2 of installed K10 G2 Top Facer 50 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	8.60E+00	1.20E-01	6.16E-04	1.29E-04	4.27E-02	1.37E-02	1.46E-02	-3.22E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.51E-07	1.34E-08	5.56E-11	1.61E-11	4.37E-09	1.52E-09	4.31E-09	-1.57E-08
Acidification potential	AP	kg SO2 eq	4.35E-02	5.27E-04	2.95E-06	9.90E-07	1.63E-04	4.49E-05	8.54E-05	-4.28E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	9.04E-03	9.65E-05	6.99E-07	2.31E-07	3.84E-05	1.11E-05	2.09E-05	-1.97E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	4.46E-03	2.83E-05	1.46E-07	2.54E-08	1.05E-05	2.82E-06	3.14E-06	-1.97E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	7.66E-05	3.32E-07	2.01E-09	2.04E-11	2.18E-07	1.05E-07	1.55E-08	-2.59E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.89E+02	1.79E+00	8.67E-03	1.77E-03	6.05E-01	2.00E-01	3.58E-01	-3.83E+00

K10 G2 Top Facer 60 mm

Table 37 – Environmental impacts per m^2 of installed K10 G2 Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	9.51E+00	1.44E-01	3.89E-04	1.54E-04	5.12E-02	1.39E-02	1.77E-02	-3.28E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	1.77E-02	1.56E-05	2.83E-08	-7.40E-09	4.13E-06	1.49E-05	1.58E-07	1.01E-03
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	7.74E-03	9.75E-06	2.49E-09	8.02E-10	4.62E-07	9.80E-08	1.72E-07	-3.21E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	9.54E+00	1.44E-01	1.54E-04	1.54E-04	5.12E-02	1.39E-02	1.77E-02	-3.30E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	4.40E-07	2.00E-08	2.38E-11	2.38E-11	6.51E-09	1.92E-09	6.46E-09	-2.00E-08
Acidification potential	AP	mol H^+ eq.	6.05E-02	1.26E-03	3.47E-06	1.62E-06	3.93E-04	8.85E-05	1.40E-04	-5.13E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.11E-03	4.25E-06	1.52E-08	7.40E-09	2.04E-06	1.05E-06	1.34E-06	-5.57E-04
Eutrophication – marine	EP - M	kg N eq.	9.60E-03	2.46E-04	1.24E-06	6.98E-07	1.04E-04	1.94E-05	5.77E-05	-7.22E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Eutrophication – terrestrial	EP - T	mol N eq.	1.04E-01	2.73E-03	1.36E-05	7.64E-06	1.14E-03	2.17E-04	6.33E-04	-8.62E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	4.03E-02	7.07E-04	1.84E-06	1.84E-06	2.83E-04	5.40E-05	1.54E-04	-2.02E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	8.76E-05	3.91E-07	9.69E-10	2.39E-11	2.57E-07	1.05E-07	1.83E-08	-2.59E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.88E+02	1.70E+00	4.50E-03	2.15E-03	6.27E-01	1.85E-01	4.47E-01	-3.16E+00
Water Depletion Potential	WDP	m^3	7.20E+01	1.16E-01	4.65E-03	2.22E-03	5.91E-01	4.99E-03	8.27E-01	-4.21E-02

Table 38 – Use of resources per m^2 of installed K10 G2 Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	5.79E+00	1.85E-02	4.63E-05	8.73E-06	8.97E-03	3.85E-03	3.52E-03	-1.26E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	5.79E+00	1.85E-02	4.63E-05	8.73E-06	8.97E-03	3.85E-03	3.52E-03	-1.26E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.02E+02	1.79E+00	4.75E-03	2.28E-03	6.60E-01	1.94E-01	4.74E-01	-3.36E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	4.61E-01	0.00E+00	-4.61E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	2.02E+02	1.79E+00	-4.57E-01	2.28E-03	6.60E-01	1.94E-01	4.74E-01	-3.36E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	5.81E-02	2.46E-04	5.53E-07	1.39E-07	1.10E-04	3.66E-05	2.49E-04	1.20E-04

Table 39 – Waste generated per m^2 of installed K10 G2 Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	4.78E-04	2.17E-06	4.65E-09	1.10E-09	9.69E-07	1.05E-04	1.75E-07	-5.66E-04
Non-hazardous waste disposed	NHWD	kg	8.57E-01	1.60E-02	1.10E-02	1.41E-06	5.52E-03	1.80E-03	2.41E+00	-7.86E-02
Radioactive waste disposed/stored	RWD	kg	1.68E-04	8.75E-07	6.48E-10	6.34E-10	3.83E-09	2.87E-09	2.17E-07	-9.17E-06

Table 40 – Output flows generated per m² of installed K10 G2 Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 41 – Additional environmental impact per m² of installed K10 G2 Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	9.03E+00	1.42E-01	3.83E-04	1.52E-04	5.01E-02	1.37E-02	1.71E-02	-3.21E-01
Particulate matter	PM	disease incidence	5.75E-07	9.48E-09	4.22E-11	4.22E-11	2.97E-09	1.07E-09	2.65E-09	3.39E-08
Ionising radiation - human health	IRP	kBq U-235 eq	4.93E-01	6.36E-04	4.38E-06	4.38E-06	2.72E-05	2.02E-05	1.57E-03	-1.63E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.29E+02	1.46E+00	3.46E-03	1.12E-03	3.78E-01	1.73E-01	1.67E-01	-6.13E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.71E-08	4.39E-11	9.52E-14	2.53E-14	1.68E-11	4.42E-12	6.29E-12	-5.31E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.03E-07	1.52E-09	3.62E-12	1.12E-12	5.39E-10	2.36E-10	1.58E-10	-3.44E-08
Soil quality	SQP	Pt	1.78E+01	4.40E-01	1.38E-03	2.88E-04	2.93E-01	5.10E-02	7.46E-01	-1.29E+00

Table 42 – Environmental impacts per m² of installed K10 G2 Top Facer 60 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	9.23E+00	1.41E-01	3.84E-04	1.52E-04	5.03E-02	1.37E-02	1.73E-02	-3.22E-01
Ozone layer depletion	ODP	kg CFC-11 eq	4.02E-07	1.58E-08	3.77E-11	1.89E-11	5.15E-09	1.52E-09	5.12E-09	-1.57E-08
Acidification potential	AP	kg SO2 eq	4.88E-02	6.21E-04	2.10E-06	1.17E-06	1.92E-04	4.49E-05	1.02E-04	-4.28E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	9.88E-03	1.14E-04	4.94E-07	2.72E-07	4.52E-05	1.11E-05	2.49E-05	-1.97E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	5.14E-03	3.34E-05	8.74E-08	2.99E-08	1.24E-05	2.82E-06	3.74E-06	-1.97E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	8.77E-05	3.91E-07	9.69E-10	2.40E-11	2.57E-07	1.05E-07	1.84E-08	-2.59E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.10E+02	2.11E+00	5.37E-03	2.09E-03	7.13E-01	2.00E-01	4.25E-01	-3.83E+00

K10 G2 Top Facer 70 mm

Table 43 – Environmental impacts per m² of installed K10 G2 Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.05E+01	1.69E-01	2.84E-04	1.80E-04	6.00E-02	1.39E-02	2.09E-02	-3.28E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	1.89E-02	1.83E-05	7.05E-09	-8.68E-09	4.85E-06	1.49E-05	1.87E-07	1.01E-03

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	8.53E-03	1.14E-05	1.68E-09	9.41E-10	5.42E-07	9.80E-08	2.03E-07	-3.21E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.06E+01	1.69E-01	1.80E-04	1.80E-04	6.00E-02	1.39E-02	2.09E-02	-3.30E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	4.99E-07	2.34E-08	2.80E-11	2.80E-11	7.63E-09	1.92E-09	7.64E-09	-2.00E-08
Acidification potential	AP	mol H^+ eq.	6.72E-02	1.48E-03	2.72E-06	1.90E-06	4.61E-04	8.85E-05	1.65E-04	-5.13E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.39E-03	4.99E-06	1.21E-08	8.68E-09	2.40E-06	1.05E-06	1.59E-06	-5.57E-04
Eutrophication – marine	EP - M	kg N eq.	1.04E-02	2.89E-04	1.06E-06	8.19E-07	1.22E-04	1.94E-05	6.83E-05	-7.22E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.13E-01	3.20E-03	1.16E-05	8.97E-06	1.33E-03	2.17E-04	7.48E-04	-8.62E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	4.49E-02	8.29E-04	2.16E-06	2.16E-06	3.32E-04	5.40E-05	1.82E-04	-2.02E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.00E-04	4.59E-07	4.45E-10	2.81E-11	3.01E-07	1.05E-07	2.17E-08	-2.59E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.14E+02	1.99E+00	3.56E-03	2.52E-03	7.35E-01	1.85E-01	5.28E-01	-3.16E+00
Water Depletion Potential	WDP	m^3	7.30E+01	1.36E-01	3.68E-03	2.61E-03	6.93E-01	4.99E-03	9.77E-01	-4.21E-02

Table 44 – Use of resources per m^2 of installed K10 G2 Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	6.28E+00	2.17E-02	2.68E-05	1.02E-05	1.05E-02	3.85E-03	4.17E-03	-1.26E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	6.28E+00	2.17E-02	2.68E-05	1.02E-05	1.05E-02	3.85E-03	4.17E-03	-1.26E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.30E+02	2.10E+00	3.77E-03	2.68E-03	7.74E-01	1.94E-01	5.61E-01	-3.36E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	2.03E-01	0.00E+00	-2.03E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	2.30E+02	2.10E+00	-2.00E-01	2.68E-03	7.74E-01	1.94E-01	5.61E-01	-3.36E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	6.72E-02	2.88E-04	3.46E-07	1.63E-07	1.29E-04	3.66E-05	2.95E-04	1.20E-04

Table 45 – Waste generated per m² of installed K10 G2 Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	4.96E-04	2.54E-06	2.86E-09	1.29E-09	1.14E-06	1.05E-04	2.07E-07	-5.66E-04
Non-hazardous waste disposed	NHWD	kg	9.35E-01	1.88E-02	4.84E-03	1.66E-06	6.47E-03	1.80E-03	2.84E+00	-7.86E-02
Radioactive waste disposed/stored	RWD	kg	1.88E-04	1.03E-06	7.50E-10	7.43E-10	4.50E-09	2.87E-09	2.56E-07	-9.17E-06

Table 46 – Output flows generated per m² of installed K10 G2 Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 47 – Additional environmental impact per m² of installed K10 G2 Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.00E+01	1.66E-01	2.80E-04	1.78E-04	5.88E-02	1.37E-02	2.02E-02	-3.21E-01
Particulate matter	PM	disease incidence	6.30E-07	1.11E-08	4.95E-11	4.95E-11	3.48E-09	1.07E-09	3.13E-09	3.39E-08
Ionising radiation - human health	IRP	kBq U-235 eq	5.44E-01	7.46E-04	5.14E-06	5.14E-06	3.20E-05	2.02E-05	1.86E-03	-1.63E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.61E+02	1.71E+00	2.35E-03	1.31E-03	4.44E-01	1.73E-01	1.98E-01	-6.13E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	3.12E-08	5.15E-11	6.05E-14	2.97E-14	1.97E-11	4.42E-12	7.44E-12	-5.31E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.32E-07	1.78E-09	2.42E-12	1.31E-12	6.32E-10	2.36E-10	1.86E-10	-3.44E-08
Soil quality	SQP	Pt	2.01E+01	5.17E-01	8.21E-04	3.38E-04	3.44E-01	5.10E-02	8.82E-01	-1.29E+00

Table 48 – Environmental impacts per m² of installed K10 G2 Top Facer 70 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.02E+01	1.66E-01	2.80E-04	1.78E-04	5.90E-02	1.37E-02	2.05E-02	-3.22E-01
Ozone layer depletion	ODP	kg CFC-11 eq	4.56E-07	1.85E-08	3.05E-11	2.22E-11	6.04E-09	1.52E-09	6.06E-09	-1.57E-08
Acidification potential	AP	kg SO2 eq	5.50E-02	7.28E-04	1.78E-06	1.37E-06	2.25E-04	4.49E-05	1.20E-04	-4.28E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.10E-02	1.33E-04	4.17E-07	3.19E-07	5.31E-05	1.11E-05	2.94E-05	-1.97E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	5.92E-03	3.92E-05	6.04E-08	3.51E-08	1.45E-05	2.82E-06	4.42E-06	-1.97E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.00E-04	4.59E-07	4.45E-10	2.82E-11	3.01E-07	1.05E-07	2.17E-08	-2.59E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.38E+02	2.47E+00	3.89E-03	2.45E-03	8.36E-01	2.00E-01	5.03E-01	-3.83E+00

K10 G2 Top Facer 80 mm

Table 49 – Environmental impacts per m^2 of installed K10 G2 Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.25E+01	2.05E-01	3.39E-04	2.19E-04	7.29E-02	1.39E-02	2.56E-02	-3.28E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	2.11E-02	2.22E-05	7.64E-09	-1.05E-08	5.89E-06	1.49E-05	2.29E-07	1.01E-03
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	9.77E-03	1.39E-05	2.00E-09	1.14E-09	6.58E-07	9.80E-08	2.48E-07	-3.21E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.25E+01	2.05E-01	2.19E-04	2.19E-04	7.29E-02	1.39E-02	2.56E-02	-3.30E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	5.82E-07	2.84E-08	3.40E-11	3.40E-11	9.26E-09	1.92E-09	9.35E-09	-2.00E-08
Acidification potential	AP	mol H^+ eq.	7.83E-02	1.79E-03	3.25E-06	2.31E-06	5.60E-04	8.85E-05	2.02E-04	-5.13E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.81E-03	6.05E-06	1.45E-08	1.05E-08	2.91E-06	1.05E-06	1.94E-06	-5.57E-04
Eutrophication – marine	EP - M	kg N eq.	1.22E-02	3.50E-04	1.27E-06	9.94E-07	1.48E-04	1.94E-05	8.35E-05	-7.22E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.32E-01	3.89E-03	1.39E-05	1.09E-05	1.62E-03	2.17E-04	9.15E-04	-8.62E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	5.33E-02	1.01E-03	2.62E-06	2.62E-06	4.03E-04	5.40E-05	2.23E-04	-2.02E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.18E-04	5.57E-07	5.16E-10	3.41E-11	3.66E-07	1.05E-07	2.65E-08	-2.59E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.57E+02	2.42E+00	4.26E-03	3.06E-03	8.92E-01	1.85E-01	6.46E-01	-3.16E+00
Water Depletion Potential	WDP	m^3	7.46E+01	1.65E-01	4.40E-03	3.17E-03	8.42E-01	4.99E-03	1.20E+00	-4.21E-02

Table 50 – Use of resources per m^2 of installed K10 G2 Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	7.34E+00	2.63E-02	3.16E-05	1.24E-05	1.28E-02	3.85E-03	5.10E-03	-1.26E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	7.34E+00	2.63E-02	3.16E-05	1.24E-05	1.28E-02	3.85E-03	5.10E-03	-1.26E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.76E+02	2.55E+00	4.51E-03	3.25E-03	9.40E-01	1.94E-01	6.86E-01	-3.36E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	2.35E-01	0.00E+00	-2.35E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Primary non renewable energy - total	PENRT	MJ	2.76E+02	2.55E+00	-2.31E-01	3.25E-03	9.40E-01	1.94E-01	6.86E-01	-3.36E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	8.10E-02	3.50E-04	4.09E-07	1.98E-07	1.56E-04	3.66E-05	3.61E-04	1.20E-04

Table 51 – Waste generated per m^2 of installed K10 G2 Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	5.21E-04	3.09E-06	3.38E-09	1.57E-09	1.38E-06	1.05E-04	2.53E-07	-5.66E-04
Non-hazardous waste disposed	NHWD	kg	1.07E+00	2.28E-02	5.60E-03	2.01E-06	7.85E-03	1.80E-03	3.48E+00	-7.86E-02
Radioactive waste disposed/stored	RWD	kg	2.18E-04	1.25E-06	9.10E-10	9.02E-10	5.46E-09	2.87E-09	3.13E-07	-9.17E-06

Table 52 – Output flows generated per m^2 of installed K10 G2 Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 53 – Additional environmental impact per m^2 of installed K10 G2 Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.18E+01	2.02E-01	3.34E-04	2.16E-04	7.14E-02	1.37E-02	2.47E-02	-3.21E-01
Particulate matter	PM	disease incidence	7.20E-07	1.35E-08	6.01E-11	6.01E-11	4.23E-09	1.07E-09	3.83E-09	3.39E-08
Ionising radiation - human health	IRP	kBq U-235 eq	6.19E-01	9.05E-04	6.24E-06	6.24E-06	3.88E-05	2.02E-05	2.28E-03	-1.63E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	3.10E+02	2.08E+00	2.79E-03	1.59E-03	5.39E-01	1.73E-01	2.42E-01	-6.13E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	3.78E-08	6.25E-11	7.16E-14	3.60E-14	2.39E-11	4.42E-12	9.10E-12	-5.31E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.67E-07	2.16E-09	2.87E-12	1.59E-12	7.67E-10	2.36E-10	2.28E-10	-3.44E-08
Soil quality	SQP	Pt	2.36E+01	6.27E-01	9.68E-04	4.10E-04	4.18E-01	5.10E-02	1.08E+00	-1.29E+00

Table 54 – Environmental impacts per m^2 of installed K10 G2 Top Facer 80 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.21E+01	2.01E-01	3.35E-04	2.17E-04	7.16E-02	1.37E-02	2.50E-02	-3.22E-01
Ozone layer depletion	ODP	kg CFC-11 eq	5.31E-07	2.25E-08	3.65E-11	2.69E-11	7.33E-09	1.52E-09	7.41E-09	-1.57E-08
Acidification potential	AP	kg SO2 eq	6.42E-02	8.84E-04	2.14E-06	1.66E-06	2.74E-04	4.49E-05	1.47E-04	-4.28E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.29E-02	1.62E-04	5.01E-07	3.87E-07	6.44E-05	1.11E-05	3.60E-05	-1.97E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	7.12E-03	4.75E-05	7.18E-08	4.25E-08	1.76E-05	2.82E-06	5.41E-06	-1.97E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.18E-04	5.57E-07	5.16E-10	3.42E-11	3.66E-07	1.05E-07	2.66E-08	-2.59E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.86E+02	3.00E+00	4.64E-03	2.97E-03	1.01E+00	2.00E-01	6.15E-01	-3.83E+00

K10 G2 Top Facer 90 mm

Table 55 – Environmental impacts per m^2 of installed K10 G2 Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.33E+01	2.24E-01	3.01E-04	2.40E-04	7.97E-02	1.39E-02	2.81E-02	-3.28E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	2.21E-02	2.43E-05	-2.29E-09	-1.15E-08	6.44E-06	1.49E-05	2.51E-07	1.01E-03
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	1.04E-02	1.52E-05	1.69E-09	1.25E-09	7.20E-07	9.80E-08	2.73E-07	-3.21E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.33E+01	2.24E-01	2.40E-04	2.40E-04	7.97E-02	1.39E-02	2.81E-02	-3.30E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	6.27E-07	3.11E-08	3.72E-11	3.72E-11	1.01E-08	1.92E-09	1.03E-08	-2.00E-08
Acidification potential	AP	mol H^+ eq.	8.39E-02	1.96E-03	3.01E-06	2.53E-06	6.13E-04	8.85E-05	2.22E-04	-5.13E-03
Eutrophication – freshwater	EP - F	kg P eq.	3.02E-03	6.62E-06	1.35E-08	1.15E-08	3.18E-06	1.05E-06	2.13E-06	-5.57E-04
Eutrophication – marine	EP - M	kg N eq.	1.30E-02	3.84E-04	1.23E-06	1.09E-06	1.62E-04	1.94E-05	9.16E-05	-7.22E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.40E-01	4.25E-03	1.34E-05	1.19E-05	1.77E-03	2.17E-04	1.00E-03	-8.62E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	5.70E-02	1.10E-03	2.87E-06	2.87E-06	4.40E-04	5.40E-05	2.44E-04	-2.02E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.27E-04	6.10E-07	2.82E-10	3.73E-11	4.00E-07	1.05E-07	2.91E-08	-2.59E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.78E+02	2.65E+00	3.96E-03	3.35E-03	9.76E-01	1.85E-01	7.09E-01	-3.16E+00
Water Depletion Potential	WDP	m^3	7.54E+01	1.80E-01	4.09E-03	3.46E-03	9.21E-01	4.99E-03	1.31E+00	-4.21E-02

Table 56 – Use of resources per m^2 of installed K10 G2 Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	7.76E+00	2.88E-02	2.33E-05	1.36E-05	1.40E-02	3.85E-03	5.59E-03	-1.26E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	7.76E+00	2.88E-02	2.33E-05	1.36E-05	1.40E-02	3.85E-03	5.59E-03	-1.26E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.98E+02	2.80E+00	4.20E-03	3.56E-03	1.03E+00	1.94E-01	7.53E-01	-3.36E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	1.19E-01	0.00E+00	-1.19E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	2.98E+02	2.80E+00	-1.15E-01	3.56E-03	1.03E+00	1.94E-01	7.53E-01	-3.36E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	8.80E-02	3.83E-04	3.24E-07	2.17E-07	1.71E-04	3.66E-05	3.96E-04	1.20E-04

Table 57 – Waste generated per m^2 of installed K10 G2 Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	5.35E-04	3.38E-06	2.64E-09	1.72E-09	1.51E-06	1.05E-04	2.78E-07	-5.66E-04
Non-hazardous waste disposed	NHWD	kg	1.13E+00	2.50E-02	2.84E-03	2.20E-06	8.59E-03	1.80E-03	3.82E+00	-7.86E-02
Radioactive waste disposed/stored	RWD	kg	2.33E-04	1.36E-06	9.91E-10	9.87E-10	5.97E-09	2.87E-09	3.44E-07	-9.17E-06

Table 58 – Output flows generated per m^2 of installed K10 G2 Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 59 – Additional environmental impact per m^2 of installed K10 G2 Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.26E+01	2.21E-01	2.96E-04	2.36E-04	7.81E-02	1.37E-02	2.71E-02	-3.21E-01
Particulate matter	PM	disease incidence	7.64E-07	1.48E-08	6.57E-11	6.57E-11	4.63E-09	1.07E-09	4.21E-09	3.39E-08
Ionising radiation - human health	IRP	kBq U-235 eq	6.57E-01	9.90E-04	6.83E-06	6.83E-06	4.24E-05	2.02E-05	2.50E-03	-1.63E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	3.35E+02	2.28E+00	2.35E-03	1.74E-03	5.89E-01	1.73E-01	2.65E-01	-6.13E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	4.08E-08	6.84E-11	5.75E-14	3.94E-14	2.61E-11	4.42E-12	9.98E-12	-5.31E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.91E-07	2.37E-09	2.39E-12	1.74E-12	8.39E-10	2.36E-10	2.50E-10	-3.44E-08
Soil quality	SQP	Pt	2.53E+01	6.86E-01	7.33E-04	4.49E-04	4.57E-01	5.10E-02	1.18E+00	-1.29E+00

Table 60 – Environmental impacts per m^2 of installed K10 G2 Top Facer 90 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.29E+01	2.20E-01	2.97E-04	2.37E-04	7.83E-02	1.37E-02	2.75E-02	-3.22E-01
Ozone layer depletion	ODP	kg CFC-11 eq	5.73E-07	2.46E-08	3.43E-11	2.95E-11	8.02E-09	1.52E-09	8.13E-09	-1.57E-08
Acidification potential	AP	kg SO2 eq	6.92E-02	9.67E-04	2.06E-06	1.82E-06	2.99E-04	4.49E-05	1.61E-04	-4.28E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.38E-02	1.77E-04	4.81E-07	4.24E-07	7.05E-05	1.11E-05	3.95E-05	-1.97E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	7.71E-03	5.20E-05	6.14E-08	4.66E-08	1.93E-05	2.82E-06	5.93E-06	-1.97E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.27E-04	6.10E-07	2.82E-10	3.75E-11	4.00E-07	1.05E-07	2.92E-08	-2.59E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	3.08E+02	3.28E+00	4.10E-03	3.25E-03	1.11E+00	2.00E-01	6.75E-01	-3.83E+00

K10 G2 Top Facer 100 mm

Table 61 – Environmental impacts per m^2 of installed K10 G2 Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.53E+01	2.62E-01	3.00E-04	2.80E-04	9.33E-02	1.39E-02	3.30E-02	-3.28E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	2.43E-02	2.84E-05	-1.04E-08	-1.35E-08	7.54E-06	1.49E-05	2.95E-07	1.01E-03
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	1.17E-02	1.78E-05	1.61E-09	1.46E-09	8.42E-07	9.80E-08	3.20E-07	-3.21E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.53E+01	2.62E-01	2.80E-04	2.80E-04	9.33E-02	1.39E-02	3.30E-02	-3.30E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	7.17E-07	3.64E-08	4.35E-11	4.35E-11	1.19E-08	1.92E-09	1.21E-08	-2.00E-08
Acidification potential	AP	mol H^+ eq.	9.53E-02	2.30E-03	3.12E-06	2.96E-06	7.17E-04	8.85E-05	2.61E-04	-5.13E-03
Eutrophication – freshwater	EP - F	kg P eq.	3.47E-03	7.75E-06	1.42E-08	1.35E-08	3.72E-06	1.05E-06	2.50E-06	-5.57E-04
Eutrophication – marine	EP - M	kg N eq.	1.47E-02	4.49E-04	1.32E-06	1.27E-06	1.89E-04	1.94E-05	1.08E-04	-7.22E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Eutrophication – terrestrial	EP - T	mol N eq.	1.59E-01	4.98E-03	1.44E-05	1.39E-05	2.07E-03	2.17E-04	1.18E-03	-8.62E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	6.56E-02	1.29E-03	3.35E-06	3.35E-06	5.15E-04	5.40E-05	2.87E-04	-2.02E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.47E-04	7.14E-07	1.25E-10	4.36E-11	4.68E-07	1.05E-07	3.42E-08	-2.59E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	3.22E+02	3.10E+00	4.12E-03	3.92E-03	1.14E+00	1.85E-01	8.33E-01	-3.16E+00
Water Depletion Potential	WDP	m^3	7.71E+01	2.11E-01	4.26E-03	4.05E-03	1.08E+00	4.99E-03	1.54E+00	-4.21E-02

Table 62 – Use of resources per m^2 of installed K10 G2 Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	8.80E+00	3.37E-02	1.91E-05	1.59E-05	1.63E-02	3.85E-03	6.57E-03	-1.26E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	8.80E+00	3.37E-02	1.91E-05	1.59E-05	1.63E-02	3.85E-03	6.57E-03	-1.26E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	3.46E+02	3.27E+00	4.37E-03	4.16E-03	1.20E+00	1.94E-01	8.85E-01	-3.36E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.96E-02	0.00E+00	-3.96E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	3.46E+02	3.27E+00	-3.52E-02	4.16E-03	1.20E+00	1.94E-01	8.85E-01	-3.36E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	1.03E-01	4.48E-04	2.89E-07	2.54E-07	2.00E-04	3.66E-05	4.65E-04	1.20E-04

Table 63 – Waste generated per m^2 of installed K10 G2 Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	5.61E-04	3.95E-06	2.32E-09	2.01E-09	1.77E-06	1.05E-04	3.27E-07	-5.66E-04
Non-hazardous waste disposed	NHWD	kg	1.26E+00	2.92E-02	9.44E-04	2.58E-06	1.01E-02	1.80E-03	4.49E+00	-7.86E-02
Radioactive waste disposed/stored	RWD	kg	2.65E-04	1.59E-06	1.16E-09	1.15E-09	6.98E-09	2.87E-09	4.04E-07	-9.17E-06

Table 64 – Output flows generated per m² of installed K10 G2 Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 65 – Additional environmental impact per m² of installed K10 G2 Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.44E+01	2.58E-01	2.96E-04	2.77E-04	9.13E-02	1.37E-02	3.19E-02	-3.21E-01
Particulate matter	PM	disease incidence	8.57E-07	1.73E-08	7.69E-11	7.69E-11	5.41E-09	1.07E-09	4.94E-09	3.39E-08
Ionising radiation - human health	IRP	kBq U-235 eq	7.38E-01	1.16E-03	7.98E-06	7.98E-06	4.96E-05	2.02E-05	2.94E-03	-1.63E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	3.88E+02	2.66E+00	2.24E-03	2.04E-03	6.89E-01	1.73E-01	3.12E-01	-6.13E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	4.79E-08	8.00E-11	5.21E-14	4.61E-14	3.05E-11	4.42E-12	1.17E-11	-5.31E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	3.29E-07	2.77E-09	2.26E-12	2.04E-12	9.82E-10	2.36E-10	2.94E-10	-3.44E-08
Soil quality	SQP	Pt	2.90E+01	8.03E-01	6.19E-04	5.25E-04	5.34E-01	5.10E-02	1.39E+00	-1.29E+00

Table 66 – Environmental impacts per m² of installed K10 G2 Top Facer 100 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.48E+01	2.57E-01	2.97E-04	2.77E-04	9.16E-02	1.37E-02	3.23E-02	-3.22E-01
Ozone layer depletion	ODP	kg CFC-11 eq	6.54E-07	2.88E-08	3.61E-11	3.45E-11	9.38E-09	1.52E-09	9.56E-09	-1.57E-08
Acidification potential	AP	kg SO2 eq	7.89E-02	1.13E-03	2.21E-06	2.13E-06	3.50E-04	4.49E-05	1.90E-04	-4.28E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.58E-02	2.07E-04	5.15E-07	4.96E-07	8.25E-05	1.11E-05	4.64E-05	-1.97E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	9.00E-03	6.09E-05	5.94E-08	5.45E-08	2.25E-05	2.82E-06	6.97E-06	-1.97E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.47E-04	7.14E-07	1.25E-10	4.38E-11	4.68E-07	1.05E-07	3.43E-08	-2.59E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	3.58E+02	3.84E+00	4.08E-03	3.80E-03	1.30E+00	2.00E-01	7.93E-01	-3.83E+00

K10 G2 White Top Facer 25 mm

Table 67 – Environmental impacts per m² of installed K10 G2 White Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	7.00E+00	6.76E-02	5.51E-04	7.22E-05	2.40E-02	1.14E-02	7.99E-03	-2.70E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.43E-01	7.31E-06	6.89E-08	-3.47E-09	1.94E-06	1.23E-05	7.14E-08	8.35E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	6.64E-03	4.58E-06	3.79E-09	3.77E-10	2.17E-07	8.06E-08	7.75E-08	-2.65E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	6.77E+00	6.76E-02	7.22E-05	7.22E-05	2.40E-02	1.14E-02	7.99E-03	-2.72E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	3.89E-07	9.37E-09	1.12E-11	1.12E-11	3.06E-09	1.58E-09	2.92E-09	-1.64E-08
Acidification potential	AP	mol H^+ eq.	4.21E-02	5.92E-04	4.52E-06	7.62E-07	1.85E-04	7.29E-05	6.32E-05	-4.23E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.70E-03	2.00E-06	1.92E-08	3.47E-09	9.59E-07	8.61E-07	6.06E-07	-4.58E-04
Eutrophication – marine	EP - M	kg N eq.	7.34E-03	1.16E-04	1.43E-06	3.28E-07	4.87E-05	1.60E-05	2.61E-05	-5.94E-04
Eutrophication – terrestrial	EP - T	mol N eq.	7.87E-02	1.28E-03	1.57E-05	3.59E-06	5.33E-04	1.79E-04	2.86E-04	-7.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	2.63E-02	3.32E-04	8.64E-07	8.64E-07	1.33E-04	4.45E-05	6.95E-05	-1.66E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	5.02E-05	1.84E-07	1.93E-09	1.12E-11	1.21E-07	8.62E-08	8.28E-09	-2.13E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.24E+02	7.98E-01	5.77E-03	1.01E-03	2.94E-01	1.52E-01	2.02E-01	-2.60E+00
Water Depletion Potential	WDP	m^3	2.05E+02	5.44E-02	5.97E-03	1.04E-03	2.78E-01	4.11E-03	3.73E-01	-3.47E-02

Table 68 – Use of resources per m^2 of installed K10 G2 White Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	7.95E+00	8.68E-03	8.04E-05	4.10E-06	4.21E-03	3.17E-03	1.59E-03	-1.04E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	7.95E+00	8.68E-03	8.04E-05	4.10E-06	4.21E-03	3.17E-03	1.59E-03	-1.04E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.33E+02	8.43E-01	6.08E-03	1.07E-03	3.10E-01	1.60E-01	2.14E-01	-2.76E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	9.36E-01	0.00E+00	-9.36E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.33E+02	8.43E-01	-9.30E-01	1.07E-03	3.10E-01	1.60E-01	2.14E-01	-2.76E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	4.11E-02	1.15E-04	9.05E-07	6.54E-08	5.16E-05	3.01E-05	1.13E-04	9.88E-05

Table 69 – Waste generated per m² of installed K10 G2 White Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	4.88E-04	1.02E-06	7.72E-09	5.18E-10	4.55E-07	8.66E-05	7.90E-08	-4.66E-04
Non-hazardous waste disposed	NHWD	kg	6.45E-01	7.53E-03	2.23E-02	6.64E-07	2.59E-03	1.48E-03	1.09E+00	-6.47E-02
Radioactive waste disposed/stored	RWD	kg	1.51E-04	4.11E-07	3.26E-10	2.98E-10	1.80E-09	2.36E-09	9.78E-08	-7.55E-06

Table 70 – Output flows generated per m² of installed K10 G2 White Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 71 – Additional environmental impact per m² of installed K10 G2 White Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	6.70E+00	6.65E-02	5.40E-04	7.13E-05	2.35E-02	1.12E-02	7.72E-03	-2.64E-01
Particulate matter	PM	disease incidence	4.14E-07	4.45E-09	1.98E-11	1.98E-11	1.39E-09	8.81E-10	1.20E-09	2.79E-08
Ionising radiation - human health	IRP	kBq U-235 eq	6.60E-01	2.99E-04	2.06E-06	2.06E-06	1.28E-05	1.66E-05	7.11E-04	-1.35E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.38E+02	6.86E-01	5.28E-03	5.26E-04	1.78E-01	1.42E-01	7.55E-02	-5.04E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.58E-08	2.06E-11	1.54E-13	1.19E-14	7.87E-12	3.64E-12	2.84E-12	-4.37E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.15E-07	7.14E-10	5.61E-12	5.26E-13	2.53E-10	1.94E-10	7.12E-11	-2.83E-08
Soil quality	SQP	Pt	1.38E+01	2.07E-01	2.36E-03	1.35E-04	1.38E-01	4.20E-02	3.37E-01	-1.06E+00

Table 72 – Environmental impacts per m² of installed K10 G2 White Top Facer 25 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	6.84E+00	6.63E-02	5.41E-04	7.14E-05	2.36E-02	1.13E-02	7.82E-03	-2.65E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.54E-07	7.41E-09	4.70E-11	8.88E-12	2.42E-09	1.25E-09	2.31E-09	-1.29E-08
Acidification potential	AP	kg SO2 eq	3.25E-02	2.92E-04	2.44E-06	5.48E-07	9.03E-05	3.69E-05	4.59E-05	-3.53E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	8.02E-03	5.34E-05	5.79E-07	1.28E-07	2.13E-05	9.11E-06	1.12E-05	-1.62E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	2.94E-03	1.57E-05	1.31E-07	1.40E-08	5.80E-06	2.32E-06	1.69E-06	-1.62E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	5.03E-05	1.84E-07	1.93E-09	1.13E-11	1.21E-07	8.62E-08	8.30E-09	-2.13E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.35E+02	9.90E-01	7.64E-03	9.80E-04	3.35E-01	1.65E-01	1.92E-01	-3.15E+00

K10 G2 White Top Facer 30 mm

Table 73 – Environmental impacts per m^2 of installed K10 G2 White Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	6.87E+00	7.47E-02	2.77E-04	7.98E-05	2.66E-02	1.14E-02	8.91E-03	-2.70E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.43E-01	8.08E-06	2.60E-08	-3.84E-09	2.15E-06	1.23E-05	7.96E-08	8.35E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	6.78E-03	5.06E-06	1.82E-09	4.16E-10	2.40E-07	8.06E-08	8.64E-08	-2.65E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	6.63E+00	7.47E-02	7.98E-05	7.98E-05	2.66E-02	1.14E-02	8.91E-03	-2.72E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	4.06E-07	1.04E-08	1.24E-11	1.24E-11	3.38E-09	1.58E-09	3.25E-09	-1.64E-08
Acidification potential	AP	mol H^+ eq.	4.16E-02	6.54E-04	2.39E-06	8.42E-07	2.04E-04	7.29E-05	7.04E-05	-4.23E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.76E-03	2.21E-06	1.03E-08	3.84E-09	1.06E-06	8.61E-07	6.75E-07	-4.58E-04
Eutrophication – marine	EP - M	kg N eq.	6.88E-03	1.28E-04	8.17E-07	3.62E-07	5.38E-05	1.60E-05	2.91E-05	-5.94E-04
Eutrophication – terrestrial	EP - T	mol N eq.	7.37E-02	1.42E-03	8.94E-06	3.97E-06	5.89E-04	1.79E-04	3.18E-04	-7.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	2.56E-02	3.67E-04	9.55E-07	9.55E-07	1.47E-04	4.45E-05	7.75E-05	-1.66E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	5.35E-05	2.03E-07	8.03E-10	1.24E-11	1.33E-07	8.62E-08	9.24E-09	-2.13E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.27E+02	8.82E-01	3.08E-03	1.12E-03	3.25E-01	1.52E-01	2.25E-01	-2.60E+00
Water Depletion Potential	WDP	m^3	2.05E+02	6.01E-02	3.18E-03	1.15E-03	3.07E-01	4.11E-03	4.16E-01	-3.47E-02

Table 74 – Use of resources per m^2 of installed K10 G2 White Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	7.70E+00	9.59E-03	3.60E-05	4.53E-06	4.65E-03	3.17E-03	1.77E-03	-1.04E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	7.70E+00	9.59E-03	3.60E-05	4.53E-06	4.65E-03	3.17E-03	1.77E-03	-1.04E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.36E+02	9.31E-01	3.25E-03	1.18E-03	3.43E-01	1.60E-01	2.39E-01	-2.76E+00

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.86E-01	0.00E+00	-3.86E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.36E+02	9.31E-01	-3.83E-01	1.18E-03	3.43E-01	1.60E-01	2.39E-01	-2.76E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	4.31E-02	1.28E-04	4.18E-07	7.23E-08	5.70E-05	3.01E-05	1.26E-04	9.88E-05

Table 75 – Waste generated per m^2 of installed K10 G2 White Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	4.93E-04	1.13E-06	3.54E-09	5.73E-10	5.03E-07	8.66E-05	8.81E-08	-4.66E-04
Non-hazardous waste disposed	NHWD	kg	6.47E-01	8.32E-03	9.18E-03	7.34E-07	2.86E-03	1.48E-03	1.21E+00	-6.47E-02
Radioactive waste disposed/stored	RWD	kg	1.56E-04	4.54E-07	3.41E-10	3.29E-10	1.99E-09	2.36E-09	1.09E-07	-7.55E-06

Table 76 – Output flows generated per m^2 of installed K10 G2 White Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 77 – Additional environmental impact per m^2 of installed K10 G2 White Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	6.56E+00	7.35E-02	2.72E-04	7.88E-05	2.60E-02	1.12E-02	8.61E-03	-2.64E-01
Particulate matter	PM	disease incidence	4.13E-07	4.92E-09	2.19E-11	2.19E-11	1.54E-09	8.81E-10	1.33E-09	2.79E-08
Ionising radiation - human health	IRP	kBq U-235 eq	6.71E-01	3.30E-04	2.27E-06	2.27E-06	1.41E-05	1.66E-05	7.92E-04	-1.35E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.46E+02	7.58E-01	2.54E-03	5.81E-04	1.96E-01	1.42E-01	8.41E-02	-5.04E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.68E-08	2.28E-11	7.16E-14	1.31E-14	8.69E-12	3.64E-12	3.17E-12	-4.37E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.24E-07	7.89E-10	2.67E-12	5.81E-13	2.80E-10	1.94E-10	7.93E-11	-2.83E-08
Soil quality	SQP	Pt	1.42E+01	2.29E-01	1.07E-03	1.50E-04	1.52E-01	4.20E-02	3.75E-01	-1.06E+00

Table 78 – Environmental impacts per m^2 of installed K10 G2 White Top Facer 30 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	6.70E+00	7.33E-02	2.73E-04	7.89E-05	2.61E-02	1.13E-02	8.71E-03	-2.65E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.69E-07	8.19E-09	2.55E-11	9.82E-12	2.67E-09	1.25E-09	2.58E-09	-1.29E-08
Acidification potential	AP	kg SO2 eq	3.35E-02	3.22E-04	1.39E-06	6.05E-07	9.97E-05	3.69E-05	5.11E-05	-3.53E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	8.06E-03	5.90E-05	3.27E-07	1.41E-07	2.35E-05	9.11E-06	1.25E-05	-1.62E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	3.12E-03	1.73E-05	6.36E-08	1.55E-08	6.41E-06	2.32E-06	1.88E-06	-1.62E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	5.36E-05	2.03E-07	8.03E-10	1.25E-11	1.33E-07	8.62E-08	9.26E-09	-2.13E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.37E+02	1.09E+00	3.83E-03	1.08E-03	3.70E-01	1.65E-01	2.14E-01	-3.15E+00

K10 G2 White Top Facer 40 mm

Table 79 – Environmental impacts per m^2 of installed K10 G2 White Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	8.45E+00	9.42E-02	6.61E-04	1.01E-04	3.35E-02	1.14E-02	1.14E-02	-2.70E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.41E-01	1.02E-05	8.01E-08	-4.84E-09	2.70E-06	1.23E-05	1.02E-07	8.35E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	7.54E-03	6.38E-06	4.53E-09	5.25E-10	3.02E-07	8.06E-08	1.11E-07	-2.65E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	8.22E+00	9.42E-02	1.01E-04	1.01E-04	3.35E-02	1.14E-02	1.14E-02	-2.72E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	4.55E-07	1.31E-08	1.56E-11	1.56E-11	4.26E-09	1.58E-09	4.17E-09	-1.64E-08
Acidification potential	AP	mol H^+ eq.	5.18E-02	8.25E-04	5.46E-06	1.06E-06	2.57E-04	7.29E-05	9.03E-05	-4.23E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.00E-03	2.78E-06	2.33E-08	4.84E-09	1.34E-06	8.61E-07	8.66E-07	-4.58E-04
Eutrophication – marine	EP - M	kg N eq.	8.81E-03	1.61E-04	1.75E-06	4.57E-07	6.78E-05	1.60E-05	3.73E-05	-5.94E-04
Eutrophication – terrestrial	EP - T	mol N eq.	9.44E-02	1.79E-03	1.92E-05	5.00E-06	7.43E-04	1.79E-04	4.08E-04	-7.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	3.27E-02	4.62E-04	1.20E-06	1.20E-06	1.85E-04	4.45E-05	9.94E-05	-1.66E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	6.35E-05	2.56E-07	2.26E-09	1.57E-11	1.68E-07	8.62E-08	1.18E-08	-2.13E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.55E+02	1.11E+00	6.99E-03	1.41E-03	4.10E-01	1.52E-01	2.88E-01	-2.60E+00
Water Depletion Potential	WDP	m^3	2.06E+02	7.57E-02	7.23E-03	1.45E-03	3.87E-01	4.11E-03	5.34E-01	-3.47E-02

Table 80 – Use of resources per m^2 of installed K10 G2 White Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	8.81E+00	1.21E-02	9.51E-05	5.71E-06	5.87E-03	3.17E-03	2.28E-03	-1.04E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	8.81E+00	1.21E-02	9.51E-05	5.71E-06	5.87E-03	3.17E-03	2.28E-03	-1.04E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.66E+02	1.17E+00	7.37E-03	1.49E-03	4.32E-01	1.60E-01	3.06E-01	-2.76E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	1.10E+00	0.00E+00	-1.10E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.67E+02	1.17E+00	-1.09E+00	1.49E-03	4.32E-01	1.60E-01	3.06E-01	-2.76E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	5.12E-02	1.61E-04	1.08E-06	9.11E-08	7.19E-05	3.01E-05	1.61E-04	9.88E-05

Table 81 – Waste generated per m^2 of installed K10 G2 White Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	5.08E-04	1.42E-06	9.17E-09	7.22E-10	6.34E-07	8.66E-05	1.13E-07	-4.66E-04
Non-hazardous waste disposed	NHWD	kg	7.43E-01	1.05E-02	2.61E-02	9.25E-07	3.61E-03	1.48E-03	1.55E+00	-6.47E-02
Radioactive waste disposed/stored	RWD	kg	1.73E-04	5.72E-07	4.48E-10	4.15E-10	2.51E-09	2.36E-09	1.40E-07	-7.55E-06

Table 82 – Output flows generated per m^2 of installed K10 G2 White Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 83 – Additional environmental impact per m^2 of installed K10 G2 White Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	8.07E+00	9.27E-02	6.49E-04	9.93E-05	3.28E-02	1.12E-02	1.10E-02	-2.64E-01
Particulate matter	PM	disease incidence	4.88E-07	6.20E-09	2.76E-11	2.76E-11	1.94E-09	8.81E-10	1.71E-09	2.79E-08
Ionising radiation - human health	IRP	kBq U-235 eq	7.15E-01	4.16E-04	2.87E-06	2.87E-06	1.78E-05	1.66E-05	1.02E-03	-1.35E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.72E+02	9.55E-01	6.31E-03	7.33E-04	2.47E-01	1.42E-01	1.08E-01	-5.04E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.01E-08	2.87E-11	1.83E-13	1.65E-14	1.10E-11	3.64E-12	4.06E-12	-4.37E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.50E-07	9.94E-10	6.69E-12	7.32E-13	3.52E-10	1.94E-10	1.02E-10	-2.83E-08
Soil quality	SQP	Pt	1.64E+01	2.88E-01	2.79E-03	1.89E-04	1.92E-01	4.20E-02	4.81E-01	-1.06E+00

Table 84 – Environmental impacts per m^2 of installed K10 G2 White Top Facer 40 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	8.24E+00	9.23E-02	6.50E-04	9.95E-05	3.29E-02	1.13E-02	1.12E-02	-2.65E-01
Ozone layer depletion	ODP	kg CFC-11 eq	4.14E-07	1.03E-08	5.70E-11	1.24E-11	3.37E-09	1.25E-09	3.31E-09	-1.29E-08
Acidification potential	AP	kg SO2 eq	4.03E-02	4.06E-04	2.98E-06	7.63E-07	1.26E-04	3.69E-05	6.56E-05	-3.53E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	9.44E-03	7.44E-05	7.07E-07	1.78E-07	2.96E-05	9.11E-06	1.61E-05	-1.62E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	3.79E-03	2.18E-05	1.56E-07	1.95E-08	8.09E-06	2.32E-06	2.41E-06	-1.62E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	6.35E-05	2.56E-07	2.26E-09	1.57E-11	1.68E-07	8.62E-08	1.19E-08	-2.13E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.70E+02	1.38E+00	9.17E-03	1.36E-03	4.66E-01	1.65E-01	2.74E-01	-3.15E+00

K10 G2 White Top Facer 45 mm

Table 85 – Environmental impacts per m^2 of installed K10 G2 White Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	8.39E+00	1.06E-01	2.69E-04	1.13E-04	3.76E-02	1.14E-02	1.29E-02	-2.70E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.41E-01	1.15E-05	1.82E-08	-5.44E-09	3.04E-06	1.23E-05	1.16E-07	8.35E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	7.82E-03	7.17E-06	1.71E-09	5.90E-10	3.40E-07	8.06E-08	1.26E-07	-2.65E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	8.15E+00	1.06E-01	1.13E-04	1.13E-04	3.76E-02	1.14E-02	1.29E-02	-2.72E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	4.81E-07	1.47E-08	1.75E-11	1.75E-11	4.78E-09	1.58E-09	4.72E-09	-1.64E-08
Acidification potential	AP	mol H^+ eq.	5.12E-02	9.27E-04	2.42E-06	1.19E-06	2.89E-04	7.29E-05	1.02E-04	-4.23E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.12E-03	3.13E-06	1.06E-08	5.44E-09	1.50E-06	8.61E-07	9.81E-07	-4.58E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Eutrophication – marine	EP - M	kg N eq.	8.27E-03	1.81E-04	8.74E-07	5.13E-07	7.63E-05	1.60E-05	4.22E-05	-5.94E-04
Eutrophication – terrestrial	EP - T	mol N eq.	8.85E-02	2.01E-03	9.57E-06	5.62E-06	8.35E-04	1.79E-04	4.62E-04	-7.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	3.23E-02	5.20E-04	1.35E-06	1.35E-06	2.08E-04	4.45E-05	1.13E-04	-1.66E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	6.91E-05	2.88E-07	6.45E-10	1.76E-11	1.89E-07	8.62E-08	1.34E-08	-2.13E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.62E+02	1.25E+00	3.14E-03	1.58E-03	4.61E-01	1.52E-01	3.26E-01	-2.60E+00
Water Depletion Potential	WDP	m^3	2.07E+02	8.51E-02	3.25E-03	1.63E-03	4.35E-01	4.11E-03	6.04E-01	-3.47E-02

Table 86 – Use of resources per m^2 of installed K10 G2 White Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	8.51E+00	1.36E-02	3.14E-05	6.42E-06	6.59E-03	3.17E-03	2.58E-03	-1.04E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	8.51E+00	1.36E-02	3.14E-05	6.42E-06	6.59E-03	3.17E-03	2.58E-03	-1.04E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.74E+02	1.32E+00	3.32E-03	1.68E-03	4.85E-01	1.60E-01	3.47E-01	-2.76E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.06E-01	0.00E+00	-3.06E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.74E+02	1.32E+00	-3.03E-01	1.68E-03	4.85E-01	1.60E-01	3.47E-01	-2.76E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	5.49E-02	1.81E-04	3.77E-07	1.02E-07	8.08E-05	3.01E-05	1.82E-04	9.88E-05

Table 87 – Waste generated per m^2 of installed K10 G2 White Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	5.16E-04	1.60E-06	3.17E-09	8.11E-10	7.13E-07	8.66E-05	1.28E-07	-4.66E-04
Non-hazardous waste disposed	NHWD	kg	7.55E-01	1.18E-02	7.29E-03	1.04E-06	4.06E-03	1.48E-03	1.76E+00	-6.47E-02
Radioactive waste disposed/stored	RWD	kg	1.82E-04	6.43E-07	4.75E-10	4.66E-10	2.82E-09	2.36E-09	1.58E-07	-7.55E-06

Table 88 – Output flows generated per m² of installed K10 G2 White Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 89 – Additional environmental impact per m² of installed K10 G2 White Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	7.99E+00	1.04E-01	2.65E-04	1.12E-04	3.69E-02	1.12E-02	1.25E-02	-2.64E-01
Particulate matter	PM	disease incidence	4.90E-07	6.97E-09	3.10E-11	3.10E-11	2.18E-09	8.81E-10	1.94E-09	2.79E-08
Ionising radiation - human health	IRP	kBq U-235 eq	7.36E-01	4.67E-04	3.22E-06	3.22E-06	2.00E-05	1.66E-05	1.15E-03	-1.35E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.87E+02	1.07E+00	2.38E-03	8.23E-04	2.78E-01	1.42E-01	1.22E-01	-5.04E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.22E-08	3.23E-11	6.50E-14	1.86E-14	1.23E-11	3.64E-12	4.60E-12	-4.37E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.60E-07	1.12E-09	2.48E-12	8.23E-13	3.96E-10	1.94E-10	1.15E-10	-2.83E-08
Soil quality	SQP	Pt	1.71E+01	3.24E-01	9.39E-04	2.12E-04	2.16E-01	4.20E-02	5.45E-01	-1.06E+00

Table 90 – Environmental impacts per m² of installed K10 G2 White Top Facer 45 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	8.17E+00	1.04E-01	2.65E-04	1.12E-04	3.70E-02	1.13E-02	1.27E-02	-2.65E-01
Ozone layer depletion	ODP	kg CFC-11 eq	4.38E-07	1.16E-08	2.64E-11	1.39E-11	3.79E-09	1.25E-09	3.74E-09	-1.29E-08
Acidification potential	AP	kg SO2 eq	4.18E-02	4.57E-04	1.48E-06	8.58E-07	1.41E-04	3.69E-05	7.42E-05	-3.53E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	9.63E-03	8.36E-05	3.48E-07	2.00E-07	3.33E-05	9.11E-06	1.82E-05	-1.62E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	4.13E-03	2.46E-05	6.01E-08	2.20E-08	9.09E-06	2.32E-06	2.73E-06	-1.62E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	6.92E-05	2.88E-07	6.45E-10	1.77E-11	1.89E-07	8.62E-08	1.34E-08	-2.13E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.76E+02	1.55E+00	3.71E-03	1.53E-03	5.24E-01	1.65E-01	3.11E-01	-3.15E+00

K10 G2 White Top Facer 50 mm

Table 91 – Environmental impacts per m² of installed K10 G2 White Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	9.63E+00	1.20E-01	6.24E-04	1.28E-04	4.25E-02	1.14E-02	1.47E-02	-2.70E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.40E-01	1.29E-05	6.89E-08	-6.15E-09	3.44E-06	1.23E-05	1.32E-07	8.35E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	8.35E-03	8.10E-06	4.21E-09	6.67E-10	3.84E-07	8.06E-08	1.43E-07	-2.65E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	9.40E+00	1.20E-01	1.28E-04	1.28E-04	4.25E-02	1.14E-02	1.47E-02	-2.72E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	5.10E-07	1.66E-08	1.98E-11	1.98E-11	5.41E-09	1.58E-09	5.38E-09	-1.64E-08
Acidification potential	AP	mol H^+ eq.	5.87E-02	1.05E-03	5.24E-06	1.35E-06	3.27E-04	7.29E-05	1.16E-04	-4.23E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.28E-03	3.53E-06	2.25E-08	6.15E-09	1.70E-06	8.61E-07	1.12E-06	-4.58E-04
Eutrophication – marine	EP - M	kg N eq.	9.84E-03	2.05E-04	1.73E-06	5.80E-07	8.62E-05	1.60E-05	4.80E-05	-5.94E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.05E-01	2.27E-03	1.89E-05	6.35E-06	9.44E-04	1.79E-04	5.26E-04	-7.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	3.79E-02	5.88E-04	1.53E-06	1.53E-06	2.35E-04	4.45E-05	1.28E-04	-1.66E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	7.56E-05	3.26E-07	2.01E-09	1.99E-11	2.13E-07	8.62E-08	1.53E-08	-2.13E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.83E+02	1.41E+00	6.72E-03	1.79E-03	5.21E-01	1.52E-01	3.71E-01	-2.60E+00
Water Depletion Potential	WDP	m^3	2.07E+02	9.62E-02	6.96E-03	1.85E-03	4.91E-01	4.11E-03	6.88E-01	-3.47E-02

Table 92 – Use of resources per m^2 of installed K10 G2 White Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	9.40E+00	1.54E-02	8.63E-05	7.26E-06	7.46E-03	3.17E-03	2.93E-03	-1.04E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	9.40E+00	1.54E-02	8.63E-05	7.26E-06	7.46E-03	3.17E-03	2.93E-03	-1.04E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.96E+02	1.49E+00	7.09E-03	1.90E-03	5.49E-01	1.60E-01	3.95E-01	-2.76E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	9.71E-01	0.00E+00	-9.71E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.97E+02	1.49E+00	-9.64E-01	1.90E-03	5.49E-01	1.60E-01	3.95E-01	-2.76E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	6.07E-02	2.04E-04	9.86E-07	1.16E-07	9.14E-05	3.01E-05	2.07E-04	9.88E-05

Table 93 – Waste generated per m² of installed K10 G2 White Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	5.24E-04	1.80E-06	8.39E-09	9.17E-10	8.06E-07	8.66E-05	1.46E-07	-4.66E-04
Non-hazardous waste disposed	NHWD	kg	8.25E-01	1.33E-02	2.31E-02	1.18E-06	4.59E-03	1.48E-03	2.00E+00	-6.47E-02
Radioactive waste disposed/stored	RWD	kg	1.93E-04	7.27E-07	5.57E-10	5.27E-10	3.19E-09	2.36E-09	1.80E-07	-7.55E-06

Table 94 – Output flows generated per m² of installed K10 G2 White Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 95 – Additional environmental impact per m² of installed K10 G2 White Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	9.18E+00	1.18E-01	6.12E-04	1.26E-04	4.17E-02	1.12E-02	1.42E-02	-2.64E-01
Particulate matter	PM	disease incidence	5.45E-07	7.88E-09	3.51E-11	3.51E-11	2.47E-09	8.81E-10	2.20E-09	2.79E-08
Ionising radiation - human health	IRP	kBq U-235 eq	7.65E-01	5.28E-04	3.64E-06	3.64E-06	2.26E-05	1.66E-05	1.31E-03	-1.35E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.05E+02	1.21E+00	5.86E-03	9.31E-04	3.15E-01	1.42E-01	1.39E-01	-5.04E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.45E-08	3.65E-11	1.68E-13	2.10E-14	1.39E-11	3.64E-12	5.23E-12	-4.37E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.72E-07	1.26E-09	6.20E-12	9.31E-13	4.48E-10	1.94E-10	1.31E-10	-2.83E-08
Soil quality	SQP	Pt	1.87E+01	3.66E-01	2.54E-03	2.40E-04	2.44E-01	4.20E-02	6.20E-01	-1.06E+00

Table 96– Environmental impacts per m² of installed K10 G2 White Top Facer 50 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	9.38E+00	1.17E-01	6.14E-04	1.26E-04	4.18E-02	1.13E-02	1.44E-02	-2.65E-01
Ozone layer depletion	ODP	kg CFC-11 eq	4.64E-07	1.31E-08	5.52E-11	1.57E-11	4.28E-09	1.25E-09	4.26E-09	-1.29E-08
Acidification potential	AP	kg SO2 eq	4.63E-02	5.16E-04	2.93E-06	9.70E-07	1.60E-04	3.69E-05	8.45E-05	-3.53E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.07E-02	9.45E-05	6.94E-07	2.26E-07	3.76E-05	9.11E-06	2.07E-05	-1.62E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	4.59E-03	2.78E-05	1.46E-07	2.48E-08	1.03E-05	2.32E-06	3.11E-06	-1.62E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	7.56E-05	3.26E-07	2.01E-09	2.00E-11	2.13E-07	8.62E-08	1.53E-08	-2.13E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.01E+02	1.75E+00	8.64E-03	1.73E-03	5.93E-01	1.65E-01	3.54E-01	-3.15E+00

K10 G2 White Top Facer 60 mm

Table 97 – Environmental impacts per m^2 of installed K10 G2 White Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.03E+01	1.41E-01	3.87E-04	1.51E-04	5.03E-02	1.14E-02	1.75E-02	-2.70E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.39E-01	1.53E-05	2.84E-08	-7.27E-09	4.06E-06	1.23E-05	1.57E-07	8.35E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	9.01E-03	9.58E-06	2.47E-09	7.88E-10	4.54E-07	8.06E-08	1.70E-07	-2.65E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.01E+01	1.41E-01	1.51E-04	1.51E-04	5.03E-02	1.14E-02	1.75E-02	-2.72E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	5.65E-07	1.96E-08	2.34E-11	2.34E-11	6.39E-09	1.58E-09	6.40E-09	-1.64E-08
Acidification potential	AP	mol H^+ eq.	6.35E-02	1.24E-03	3.44E-06	1.59E-06	3.86E-04	7.29E-05	1.39E-04	-4.23E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.51E-03	4.18E-06	1.50E-08	7.27E-09	2.01E-06	8.61E-07	1.33E-06	-4.58E-04
Eutrophication – marine	EP - M	kg N eq.	1.02E-02	2.42E-04	1.23E-06	6.86E-07	1.02E-04	1.60E-05	5.72E-05	-5.94E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.09E-01	2.68E-03	1.35E-05	7.51E-06	1.12E-03	1.79E-04	6.27E-04	-7.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	4.07E-02	6.94E-04	1.81E-06	1.81E-06	2.78E-04	4.45E-05	1.53E-04	-1.66E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	8.66E-05	3.85E-07	9.68E-10	2.35E-11	2.52E-07	8.62E-08	1.82E-08	-2.13E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.04E+02	1.67E+00	4.46E-03	2.11E-03	6.16E-01	1.52E-01	4.42E-01	-2.60E+00
Water Depletion Potential	WDP	m^3	2.08E+02	1.14E-01	4.61E-03	2.18E-03	5.81E-01	4.11E-03	8.19E-01	-3.47E-02

Table 98 – Use of resources per m^2 of installed K10 G2 White Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	9.61E+00	1.81E-02	4.62E-05	8.58E-06	8.81E-03	3.17E-03	3.49E-03	-1.04E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	9.61E+00	1.81E-02	4.62E-05	8.58E-06	8.81E-03	3.17E-03	3.49E-03	-1.04E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.18E+02	1.76E+00	4.71E-03	2.24E-03	6.49E-01	1.60E-01	4.70E-01	-2.76E+00

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	4.61E-01	0.00E+00	-4.61E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	2.19E+02	1.76E+00	-4.57E-01	2.24E-03	6.49E-01	1.60E-01	4.70E-01	-2.76E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	6.83E-02	2.42E-04	5.51E-07	1.37E-07	1.08E-04	3.01E-05	2.47E-04	9.88E-05

Table 99 – Waste generated per m^2 of installed K10 G2 White Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	5.41E-04	2.13E-06	4.63E-09	1.08E-09	9.52E-07	8.66E-05	1.73E-07	-4.66E-04
Non-hazardous waste disposed	NHWD	kg	8.83E-01	1.58E-02	1.10E-02	1.39E-06	5.42E-03	1.48E-03	2.38E+00	-6.47E-02
Radioactive waste disposed/stored	RWD	kg	2.10E-04	8.60E-07	6.37E-10	6.23E-10	3.77E-09	2.36E-09	2.15E-07	-7.55E-06

Table 100 – Output flows generated per m^2 of installed K10 G2 White Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 101 – Additional environmental impact per m^2 of installed K10 G2 White Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	9.79E+00	1.39E-01	3.80E-04	1.49E-04	4.92E-02	1.12E-02	1.69E-02	-2.64E-01
Particulate matter	PM	disease incidence	5.85E-07	9.31E-09	4.15E-11	4.15E-11	2.92E-09	8.81E-10	2.63E-09	2.79E-08
Ionising radiation - human health	IRP	kBq U-235 eq	8.09E-01	6.25E-04	4.30E-06	4.30E-06	2.68E-05	1.66E-05	1.56E-03	-1.35E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.33E+02	1.43E+00	3.44E-03	1.10E-03	3.72E-01	1.42E-01	1.66E-01	-5.04E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.80E-08	4.31E-11	9.48E-14	2.48E-14	1.65E-11	3.64E-12	6.23E-12	-4.37E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.03E-07	1.49E-09	3.60E-12	1.10E-12	5.29E-10	1.94E-10	1.56E-10	-2.83E-08
Soil quality	SQP	Pt	2.05E+01	4.33E-01	1.38E-03	2.83E-04	2.88E-01	4.20E-02	7.39E-01	-1.06E+00

Table 102 – Environmental impacts per m^2 of installed K10 G2 White Top Facer 60 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.00E+01	1.39E-01	3.81E-04	1.49E-04	4.94E-02	1.13E-02	1.72E-02	-2.65E-01
Ozone layer depletion	ODP	kg CFC-11 eq	5.15E-07	1.55E-08	3.74E-11	1.86E-11	5.06E-09	1.25E-09	5.08E-09	-1.29E-08
Acidification potential	AP	kg SO2 eq	5.16E-02	6.10E-04	2.08E-06	1.15E-06	1.89E-04	3.69E-05	1.01E-04	-3.53E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.15E-02	1.12E-04	4.90E-07	2.67E-07	4.45E-05	9.11E-06	2.47E-05	-1.62E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	5.26E-03	3.28E-05	8.69E-08	2.94E-08	1.21E-05	2.32E-06	3.70E-06	-1.62E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	8.67E-05	3.85E-07	9.69E-10	2.36E-11	2.52E-07	8.62E-08	1.82E-08	-2.13E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.22E+02	2.07E+00	5.33E-03	2.05E-03	7.00E-01	1.65E-01	4.21E-01	-3.15E+00

K10 G2 White Top Facer 70 mm

Table 103 – Environmental impacts per m^2 of installed K10 G2 White Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.13E+01	1.66E-01	2.82E-04	1.78E-04	5.91E-02	1.14E-02	2.08E-02	-2.70E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.38E-01	1.80E-05	7.18E-09	-8.55E-09	4.78E-06	1.23E-05	1.86E-07	8.35E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	9.80E-03	1.13E-05	1.67E-09	9.27E-10	5.34E-07	8.06E-08	2.01E-07	-2.65E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.11E+01	1.66E-01	1.78E-04	1.78E-04	5.92E-02	1.14E-02	2.08E-02	-2.72E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	6.24E-07	2.31E-08	2.76E-11	2.76E-11	7.52E-09	1.58E-09	7.58E-09	-1.64E-08
Acidification potential	AP	mol H^+ eq.	7.01E-02	1.46E-03	2.69E-06	1.87E-06	4.54E-04	7.29E-05	1.64E-04	-4.23E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.79E-03	4.91E-06	1.20E-08	8.55E-09	2.36E-06	8.61E-07	1.57E-06	-4.58E-04
Eutrophication – marine	EP - M	kg N eq.	1.10E-02	2.84E-04	1.05E-06	8.07E-07	1.20E-04	1.60E-05	6.77E-05	-5.94E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.17E-01	3.16E-03	1.15E-05	8.83E-06	1.31E-03	1.79E-04	7.42E-04	-7.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	4.53E-02	8.17E-04	2.13E-06	2.13E-06	3.27E-04	4.45E-05	1.81E-04	-1.66E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	9.90E-05	4.53E-07	4.44E-10	2.77E-11	2.97E-07	8.62E-08	2.15E-08	-2.13E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.30E+02	1.96E+00	3.52E-03	2.48E-03	7.24E-01	1.52E-01	5.24E-01	-2.60E+00
Water Depletion Potential	WDP	m^3	2.09E+02	1.34E-01	3.64E-03	2.57E-03	6.83E-01	4.11E-03	9.70E-01	-3.47E-02

Table 104 – Use of resources per m² of installed K10 G2 White Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	1.01E+01	2.14E-02	2.67E-05	1.01E-05	1.04E-02	3.17E-03	4.13E-03	-1.04E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	1.01E+01	2.14E-02	2.67E-05	1.01E-05	1.04E-02	3.17E-03	4.13E-03	-1.04E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.46E+02	2.07E+00	3.73E-03	2.64E-03	7.63E-01	1.60E-01	5.56E-01	-2.76E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	2.03E-01	0.00E+00	-2.03E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	2.47E+02	2.07E+00	-2.00E-01	2.64E-03	7.63E-01	1.60E-01	5.56E-01	-2.76E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	7.74E-02	2.84E-04	3.43E-07	1.61E-07	1.27E-04	3.01E-05	2.93E-04	9.88E-05

Table 105 – Waste generated per m² of installed K10 G2 White Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	5.59E-04	2.51E-06	2.84E-09	1.28E-09	1.12E-06	8.66E-05	2.05E-07	-4.66E-04
Non-hazardous waste disposed	NHWD	kg	9.61E-01	1.85E-02	4.84E-03	1.63E-06	6.38E-03	1.48E-03	2.82E+00	-6.47E-02
Radioactive waste disposed/stored	RWD	kg	2.30E-04	1.01E-06	7.39E-10	7.32E-10	4.43E-09	2.36E-09	2.54E-07	-7.55E-06

Table 106 – Output flows generated per m² of installed K10 G2 White Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 107 – Additional environmental impact per m^2 of installed K10 G2 White Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.08E+01	1.64E-01	2.77E-04	1.75E-04	5.79E-02	1.12E-02	2.01E-02	-2.64E-01
Particulate matter	PM	disease incidence	6.39E-07	1.10E-08	4.88E-11	4.88E-11	3.43E-09	8.81E-10	3.11E-09	2.79E-08
Ionising radiation - human health	IRP	kBq U-235 eq	8.60E-01	7.35E-04	5.06E-06	5.06E-06	3.15E-05	1.66E-05	1.85E-03	-1.35E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.66E+02	1.69E+00	2.33E-03	1.29E-03	4.37E-01	1.42E-01	1.96E-01	-5.04E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	3.22E-08	5.07E-11	6.00E-14	2.92E-14	1.94E-11	3.64E-12	7.38E-12	-4.37E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.32E-07	1.76E-09	2.40E-12	1.29E-12	6.23E-10	1.94E-10	1.85E-10	-2.83E-08
Soil quality	SQP	Pt	2.27E+01	5.09E-01	8.16E-04	3.33E-04	3.39E-01	4.20E-02	8.75E-01	-1.06E+00

Table 108 – Environmental impacts per m^2 of installed K10 G2 White Top Facer 70 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.10E+01	1.63E-01	2.78E-04	1.76E-04	5.81E-02	1.13E-02	2.03E-02	-2.65E-01
Ozone layer depletion	ODP	kg CFC-11 eq	5.69E-07	1.82E-08	3.01E-11	2.19E-11	5.95E-09	1.25E-09	6.01E-09	-1.29E-08
Acidification potential	AP	kg SO2 eq	5.79E-02	7.18E-04	1.76E-06	1.35E-06	2.22E-04	3.69E-05	1.19E-04	-3.53E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.26E-02	1.31E-04	4.12E-07	3.14E-07	5.23E-05	9.11E-06	2.92E-05	-1.62E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	6.05E-03	3.86E-05	5.99E-08	3.45E-08	1.43E-05	2.32E-06	4.39E-06	-1.62E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	9.90E-05	4.53E-07	4.44E-10	2.78E-11	2.97E-07	8.62E-08	2.16E-08	-2.13E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.51E+02	2.44E+00	3.86E-03	2.41E-03	8.24E-01	1.65E-01	4.99E-01	-3.15E+00

K10 G2 White Top Facer 80 mm

Table 109 – Environmental impacts per m^2 of installed K10 G2 White Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.32E+01	2.02E-01	3.36E-04	2.16E-04	7.20E-02	1.14E-02	2.54E-02	-2.70E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.36E-01	2.19E-05	7.77E-09	-1.04E-08	5.81E-06	1.23E-05	2.27E-07	8.35E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	1.10E-02	1.37E-05	1.99E-09	1.13E-09	6.50E-07	8.06E-08	2.47E-07	-2.65E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.30E+01	2.03E-01	2.16E-04	2.16E-04	7.20E-02	1.14E-02	2.54E-02	-2.72E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	7.07E-07	2.81E-08	3.35E-11	3.35E-11	9.15E-09	1.58E-09	9.29E-09	-1.64E-08
Acidification potential	AP	mol H^+ eq.	8.13E-02	1.77E-03	3.22E-06	2.28E-06	5.53E-04	7.29E-05	2.01E-04	-4.23E-03
Eutrophication – freshwater	EP - F	kg P eq.	3.21E-03	5.98E-06	1.44E-08	1.04E-08	2.87E-06	8.61E-07	1.93E-06	-4.58E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Eutrophication – marine	EP - M	kg N eq.	1.28E-02	3.46E-04	1.26E-06	9.82E-07	1.46E-04	1.60E-05	8.30E-05	-5.94E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.37E-01	3.84E-03	1.38E-05	1.07E-05	1.60E-03	1.79E-04	9.09E-04	-7.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	5.37E-02	9.94E-04	2.59E-06	2.59E-06	3.98E-04	4.45E-05	2.21E-04	-1.66E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.17E-04	5.51E-07	5.15E-10	3.37E-11	3.61E-07	8.62E-08	2.64E-08	-2.13E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.73E+02	2.39E+00	4.22E-03	3.02E-03	8.81E-01	1.52E-01	6.42E-01	-2.60E+00
Water Depletion Potential	WDP	m^3	2.11E+02	1.63E-01	4.36E-03	3.13E-03	8.31E-01	4.11E-03	1.19E+00	-3.47E-02

Table 110 – Use of resources per m^2 of installed K10 G2 White Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	1.12E+01	2.60E-02	3.14E-05	1.23E-05	1.26E-02	3.17E-03	5.06E-03	-1.04E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	1.12E+01	2.60E-02	3.14E-05	1.23E-05	1.26E-02	3.17E-03	5.06E-03	-1.04E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.92E+02	2.52E+00	4.47E-03	3.21E-03	9.28E-01	1.60E-01	6.82E-01	-2.76E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	2.35E-01	0.00E+00	-2.35E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	2.93E+02	2.52E+00	-2.31E-01	3.21E-03	9.28E-01	1.60E-01	6.82E-01	-2.76E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	9.12E-02	3.46E-04	4.07E-07	1.96E-07	1.55E-04	3.01E-05	3.58E-04	9.88E-05

Table 111 – Waste generated per m^2 of installed K10 G2 White Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	5.83E-04	3.05E-06	3.36E-09	1.55E-09	1.36E-06	8.66E-05	2.52E-07	-4.66E-04
Non-hazardous waste disposed	NHWD	kg	1.09E+00	2.26E-02	5.60E-03	1.99E-06	7.76E-03	1.48E-03	3.46E+00	-6.47E-02
Radioactive waste disposed/stored	RWD	kg	2.60E-04	1.23E-06	8.99E-10	8.91E-10	5.39E-09	2.36E-09	3.11E-07	-7.55E-06

Table 112 – Output flows generated per m² of installed K10 G2 White Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 113 – Additional environmental impact per m² of installed K10 G2 White Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.26E+01	1.99E-01	3.31E-04	2.13E-04	7.05E-02	1.12E-02	2.46E-02	-2.64E-01
Particulate matter	PM	disease incidence	7.29E-07	1.33E-08	5.93E-11	5.93E-11	4.18E-09	8.81E-10	3.81E-09	2.79E-08
Ionising radiation - human health	IRP	kBq U-235 eq	9.35E-01	8.94E-04	6.16E-06	6.16E-06	3.83E-05	1.66E-05	2.26E-03	-1.35E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	3.15E+02	2.05E+00	2.77E-03	1.57E-03	5.32E-01	1.42E-01	2.40E-01	-5.04E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	3.87E-08	6.17E-11	7.12E-14	3.56E-14	2.36E-11	3.64E-12	9.04E-12	-4.37E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.66E-07	2.14E-09	2.85E-12	1.57E-12	7.58E-10	1.94E-10	2.26E-10	-2.83E-08
Soil quality	SQP	Pt	2.62E+01	6.19E-01	9.63E-04	4.05E-04	4.12E-01	4.20E-02	1.07E+00	-1.06E+00

Table 114 – Environmental impacts per m² of installed K10 G2 White Top Facer 80 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.29E+01	1.99E-01	3.32E-04	2.14E-04	7.07E-02	1.13E-02	2.49E-02	-2.65E-01
Ozone layer depletion	ODP	kg CFC-11 eq	6.44E-07	2.22E-08	3.62E-11	2.66E-11	7.24E-09	1.25E-09	7.36E-09	-1.29E-08
Acidification potential	AP	kg SO2 eq	6.71E-02	8.73E-04	2.12E-06	1.64E-06	2.70E-04	3.69E-05	1.46E-04	-3.53E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.46E-02	1.60E-04	4.96E-07	3.83E-07	6.36E-05	9.11E-06	3.58E-05	-1.62E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	7.25E-03	4.70E-05	7.13E-08	4.20E-08	1.74E-05	2.32E-06	5.37E-06	-1.62E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.17E-04	5.51E-07	5.15E-10	3.38E-11	3.61E-07	8.62E-08	2.64E-08	-2.13E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.98E+02	2.96E+00	4.61E-03	2.93E-03	1.00E+00	1.65E-01	6.11E-01	-3.15E+00

K10 G2 White Top Facer 90 mm

Table 115 – Environmental impacts per m² of installed K10 G2 White Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.41E+01	2.22E-01	2.98E-04	2.37E-04	7.88E-02	1.14E-02	2.79E-02	-2.70E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.35E-01	2.40E-05	-2.16E-09	-1.14E-08	6.37E-06	1.23E-05	2.50E-07	8.35E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	1.16E-02	1.50E-05	1.67E-09	1.24E-09	7.12E-07	8.06E-08	2.71E-07	-2.65E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.39E+01	2.22E-01	2.37E-04	2.37E-04	7.89E-02	1.14E-02	2.79E-02	-2.72E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	7.52E-07	3.07E-08	3.67E-11	3.67E-11	1.00E-08	1.58E-09	1.02E-08	-1.64E-08
Acidification potential	AP	mol H^+ eq.	8.69E-02	1.94E-03	2.98E-06	2.50E-06	6.06E-04	7.29E-05	2.21E-04	-4.23E-03
Eutrophication – freshwater	EP - F	kg P eq.	3.42E-03	6.55E-06	1.34E-08	1.14E-08	3.15E-06	8.61E-07	2.12E-06	-4.58E-04
Eutrophication – marine	EP - M	kg N eq.	1.35E-02	3.79E-04	1.22E-06	1.08E-06	1.60E-04	1.60E-05	9.11E-05	-5.94E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.45E-01	4.21E-03	1.33E-05	1.18E-05	1.75E-03	1.79E-04	9.98E-04	-7.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	5.74E-02	1.09E-03	2.84E-06	2.84E-06	4.36E-04	4.45E-05	2.43E-04	-1.66E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.26E-04	6.03E-07	2.81E-10	3.69E-11	3.96E-07	8.62E-08	2.90E-08	-2.13E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.93E+02	2.62E+00	3.92E-03	3.31E-03	9.65E-01	1.52E-01	7.05E-01	-2.60E+00
Water Depletion Potential	WDP	m^3	2.12E+02	1.78E-01	4.05E-03	3.42E-03	9.11E-01	4.11E-03	1.30E+00	-3.47E-02

Table 116 – Use of resources per m^2 of installed K10 G2 White Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	1.16E+01	2.85E-02	2.32E-05	1.34E-05	1.38E-02	3.17E-03	5.56E-03	-1.04E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	1.16E+01	2.85E-02	2.32E-05	1.34E-05	1.38E-02	3.17E-03	5.56E-03	-1.04E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	3.14E+02	2.76E+00	4.16E-03	3.52E-03	1.02E+00	1.60E-01	7.48E-01	-2.76E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	1.19E-01	0.00E+00	-1.19E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	3.14E+02	2.76E+00	-1.15E-01	3.52E-03	1.02E+00	1.60E-01	7.48E-01	-2.76E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	9.82E-02	3.79E-04	3.22E-07	2.14E-07	1.69E-04	3.01E-05	3.94E-04	9.88E-05

Table 117 – Waste generated per m² of installed K10 G2 White Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	5.97E-04	3.34E-06	2.62E-09	1.70E-09	1.49E-06	8.66E-05	2.76E-07	-4.66E-04
Non-hazardous waste disposed	NHWD	kg	1.15E+00	2.47E-02	2.84E-03	2.18E-06	8.50E-03	1.48E-03	3.80E+00	-6.47E-02
Radioactive waste disposed/stored	RWD	kg	2.76E-04	1.35E-06	9.80E-10	9.76E-10	5.90E-09	2.36E-09	3.42E-07	-7.55E-06

Table 118 – Output flows generated per m² of installed K10 G2 White Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 119 – Additional environmental impact per m² of installed K10 G2 White Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.34E+01	2.18E-01	2.94E-04	2.34E-04	7.72E-02	1.12E-02	2.70E-02	-2.64E-01
Particulate matter	PM	disease incidence	7.74E-07	1.46E-08	6.50E-11	6.50E-11	4.57E-09	8.81E-10	4.18E-09	2.79E-08
Ionising radiation - human health	IRP	kBq U-235 eq	9.73E-01	9.79E-04	6.75E-06	6.75E-06	4.20E-05	1.66E-05	2.48E-03	-1.35E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	3.39E+02	2.25E+00	2.33E-03	1.73E-03	5.83E-01	1.42E-01	2.64E-01	-5.04E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	4.18E-08	6.76E-11	5.70E-14	3.89E-14	2.58E-11	3.64E-12	9.93E-12	-4.37E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.90E-07	2.34E-09	2.37E-12	1.72E-12	8.30E-10	1.94E-10	2.49E-10	-2.83E-08
Soil quality	SQP	Pt	2.79E+01	6.78E-01	7.28E-04	4.44E-04	4.52E-01	4.20E-02	1.18E+00	-1.06E+00

Table 120 – Environmental impacts per m² of installed K10 G2 White Top Facer 90 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.37E+01	2.17E-01	2.94E-04	2.34E-04	7.74E-02	1.13E-02	2.73E-02	-2.65E-01
Ozone layer depletion	ODP	kg CFC-11 eq	6.86E-07	2.43E-08	3.40E-11	2.91E-11	7.93E-09	1.25E-09	8.08E-09	-1.29E-08
Acidification potential	AP	kg SO2 eq	7.21E-02	9.57E-04	2.04E-06	1.80E-06	2.96E-04	3.69E-05	1.60E-04	-3.53E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.54E-02	1.75E-04	4.77E-07	4.19E-07	6.97E-05	9.11E-06	3.93E-05	-1.62E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	7.84E-03	5.15E-05	6.09E-08	4.60E-08	1.90E-05	2.32E-06	5.90E-06	-1.62E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.26E-04	6.03E-07	2.82E-10	3.71E-11	3.96E-07	8.62E-08	2.90E-08	-2.13E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	3.20E+02	3.25E+00	4.06E-03	3.21E-03	1.10E+00	1.65E-01	6.71E-01	-3.15E+00

K10 G2 White Top Facer 100 mm

Table 121 – Environmental impacts per m^2 of installed K10 G2 White Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.60E+01	2.60E-01	2.98E-04	2.78E-04	9.24E-02	1.14E-02	3.29E-02	-2.70E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.32E-01	2.81E-05	-1.03E-08	-1.34E-08	7.46E-06	1.23E-05	2.94E-07	8.35E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	1.30E-02	1.76E-05	1.59E-09	1.45E-09	8.34E-07	8.06E-08	3.19E-07	-2.65E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.58E+01	2.60E-01	2.78E-04	2.78E-04	9.24E-02	1.14E-02	3.29E-02	-2.72E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	8.42E-07	3.60E-08	4.31E-11	4.31E-11	1.17E-08	1.58E-09	1.20E-08	-1.64E-08
Acidification potential	AP	mol H^+ eq.	9.83E-02	2.28E-03	3.09E-06	2.93E-06	7.10E-04	7.29E-05	2.60E-04	-4.23E-03
Eutrophication – freshwater	EP - F	kg P eq.	3.87E-03	7.67E-06	1.40E-08	1.34E-08	3.69E-06	8.61E-07	2.49E-06	-4.58E-04
Eutrophication – marine	EP - M	kg N eq.	1.53E-02	4.44E-04	1.31E-06	1.26E-06	1.87E-04	1.60E-05	1.07E-04	-5.94E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.64E-01	4.93E-03	1.43E-05	1.38E-05	2.05E-03	1.79E-04	1.17E-03	-7.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	6.60E-02	1.28E-03	3.32E-06	3.32E-06	5.10E-04	4.45E-05	2.86E-04	-1.66E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.46E-04	7.07E-07	1.24E-10	4.32E-11	4.64E-07	8.62E-08	3.41E-08	-2.13E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	3.38E+02	3.07E+00	4.08E-03	3.88E-03	1.13E+00	1.52E-01	8.29E-01	-2.60E+00
Water Depletion Potential	WDP	m^3	2.13E+02	2.09E-01	4.22E-03	4.01E-03	1.07E+00	4.11E-03	1.53E+00	-3.47E-02

Table 122 – Use of resources per m^2 of installed K10 G2 White Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	1.26E+01	3.33E-02	1.90E-05	1.58E-05	1.62E-02	3.17E-03	6.54E-03	-1.04E+00
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	1.26E+01	3.33E-02	1.90E-05	1.58E-05	1.62E-02	3.17E-03	6.54E-03	-1.04E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	3.62E+02	3.24E+00	4.33E-03	4.12E-03	1.19E+00	1.60E-01	8.80E-01	-2.76E+00

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.96E-02	0.00E+00	-3.96E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	3.62E+02	3.24E+00	-3.52E-02	4.12E-03	1.19E+00	1.60E-01	8.80E-01	-2.76E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	1.13E-01	4.44E-04	2.87E-07	2.51E-07	1.98E-04	3.01E-05	4.63E-04	9.88E-05

Table 123 – Waste generated per m^2 of installed K10 G2 White Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	6.24E-04	3.92E-06	2.30E-09	1.99E-09	1.75E-06	8.66E-05	3.25E-07	-4.66E-04
Non-hazardous waste disposed	NHWD	kg	1.29E+00	2.90E-02	9.44E-04	2.55E-06	9.96E-03	1.48E-03	4.47E+00	-6.47E-02
Radioactive waste disposed/stored	RWD	kg	3.08E-04	1.58E-06	1.15E-09	1.14E-09	6.92E-09	2.36E-09	4.02E-07	-7.55E-06

Table 124 – Output flows generated per m^2 of installed K10 G2 White Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-01	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 125 – Additional environmental impact per m^2 of installed K10 G2 White Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.52E+01	2.56E-01	2.94E-04	2.74E-04	9.05E-02	1.12E-02	3.17E-02	-2.64E-01
Particulate matter	PM	disease incidence	8.66E-07	1.71E-08	7.62E-11	7.62E-11	5.36E-09	8.81E-10	4.92E-09	2.79E-08
Ionising radiation - human health	IRP	kBq U-235 eq	1.05E+00	1.15E-03	7.91E-06	7.91E-06	4.92E-05	1.66E-05	2.92E-03	-1.35E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	3.92E+02	2.64E+00	2.22E-03	2.02E-03	6.83E-01	1.42E-01	3.10E-01	-5.04E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	4.88E-08	7.92E-11	5.16E-14	4.56E-14	3.02E-11	3.64E-12	1.17E-11	-4.37E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	3.28E-07	2.74E-09	2.24E-12	2.02E-12	9.72E-10	1.94E-10	2.93E-10	-2.83E-08
Soil quality	SQP	Pt	3.17E+01	7.95E-01	6.14E-04	5.20E-04	5.29E-01	4.20E-02	1.38E+00	-1.06E+00

Table 126 – Environmental impacts per m^2 of installed K10 G2 White Top Facer 100 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.56E+01	2.55E-01	2.94E-04	2.75E-04	9.07E-02	1.13E-02	3.21E-02	-2.65E-01
Ozone layer depletion	ODP	kg CFC-11 eq	7.67E-07	2.85E-08	3.58E-11	3.41E-11	9.29E-09	1.25E-09	9.51E-09	-1.29E-08
Acidification potential	AP	kg SO2 eq	8.17E-02	1.12E-03	2.19E-06	2.11E-06	3.47E-04	3.69E-05	1.89E-04	-3.53E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.74E-02	2.05E-04	5.10E-07	4.91E-07	8.17E-05	9.11E-06	4.62E-05	-1.62E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	9.13E-03	6.03E-05	5.89E-08	5.39E-08	2.23E-05	2.32E-06	6.94E-06	-1.62E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.46E-04	7.07E-07	1.24E-10	4.34E-11	4.64E-07	8.62E-08	3.41E-08	-2.13E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	3.70E+02	3.80E+00	4.05E-03	3.77E-03	1.29E+00	1.65E-01	7.89E-01	-3.15E+00

K10 SG Top Facer 25 mm

Table 127 – Environmental impacts per m^2 of installed K10 SG Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	5.69E+00	6.54E-02	5.48E-04	6.99E-05	2.32E-02	9.26E-03	7.85E-03	-2.19E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.97E-01	7.07E-06	6.90E-08	-3.36E-09	1.88E-06	9.96E-06	7.01E-08	6.76E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	6.64E-03	4.43E-06	3.78E-09	3.64E-10	2.10E-07	6.53E-08	7.62E-08	-2.14E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	5.40E+00	6.54E-02	6.98E-05	6.98E-05	2.33E-02	9.27E-03	7.85E-03	-2.20E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	2.46E-07	9.07E-09	1.08E-11	1.08E-11	2.96E-09	1.28E-09	2.87E-09	-1.33E-08
Acidification potential	AP	mol H^+ eq.	3.73E-02	5.73E-04	4.49E-06	7.37E-07	1.79E-04	5.90E-05	6.20E-05	-3.42E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.28E-03	1.93E-06	1.91E-08	3.36E-09	9.28E-07	6.97E-07	5.95E-07	-3.71E-04
Eutrophication – marine	EP - M	kg N eq.	6.55E-03	1.12E-04	1.42E-06	3.17E-07	4.71E-05	1.29E-05	2.56E-05	-4.81E-04
Eutrophication – terrestrial	EP - T	mol N eq.	7.06E-02	1.24E-03	1.56E-05	3.47E-06	5.16E-04	1.45E-04	2.80E-04	-5.74E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	2.38E-02	3.21E-04	8.36E-07	8.36E-07	1.28E-04	3.60E-05	6.83E-05	-1.35E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	4.53E-05	1.78E-07	1.93E-09	1.09E-11	1.17E-07	6.98E-08	8.14E-09	-1.73E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.04E+02	7.72E-01	5.74E-03	9.77E-04	2.85E-01	1.23E-01	1.98E-01	-2.10E+00
Water Depletion Potential	WDP	m^3	9.45E+01	5.26E-02	5.94E-03	1.01E-03	2.69E-01	3.33E-03	3.67E-01	-2.81E-02

Table 128 – Use of resources per m² of installed K10 SG Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	8.00E+00	8.39E-03	8.02E-05	3.97E-06	4.07E-03	2.57E-03	1.56E-03	-8.41E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	8.00E+00	8.39E-03	8.02E-05	3.97E-06	4.07E-03	2.57E-03	1.56E-03	-8.41E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.11E+02	8.15E-01	6.05E-03	1.04E-03	3.00E-01	1.30E-01	2.10E-01	-2.24E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	9.36E-01	0.00E+00	-9.36E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.12E+02	8.15E-01	-9.30E-01	1.04E-03	3.00E-01	1.30E-01	2.10E-01	-2.24E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	3.87E-02	1.12E-04	9.03E-07	6.32E-08	4.99E-05	2.44E-05	1.11E-04	8.00E-05

Table 129 – Waste generated per m² of installed K10 SG Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	2.67E-04	9.85E-07	7.70E-09	5.01E-10	4.40E-07	7.01E-05	7.76E-08	-3.77E-04
Non-hazardous waste disposed	NHWD	kg	5.42E-01	7.29E-03	2.23E-02	6.42E-07	2.51E-03	1.20E-03	1.07E+00	-5.24E-02
Radioactive waste disposed/stored	RWD	kg	1.09E-04	3.97E-07	3.17E-10	2.88E-10	1.74E-09	1.91E-09	9.60E-08	-6.12E-06

Table 130 – Output flows generated per m² of installed K10 SG Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.30E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 131 – Additional environmental impact per m^2 of installed K10 SG Top Facer 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	5.43E+00	6.44E-02	5.38E-04	6.90E-05	2.28E-02	9.11E-03	7.58E-03	-2.14E-01
Particulate matter	PM	disease incidence	3.65E-07	4.31E-09	1.92E-11	1.92E-11	1.35E-09	7.13E-10	1.17E-09	2.26E-08
Ionising radiation - human health	IRP	kBq U-235 eq	3.95E-01	2.89E-04	1.99E-06	1.99E-06	1.24E-05	1.35E-05	6.98E-04	-1.09E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.21E+02	6.63E-01	5.27E-03	5.09E-04	1.72E-01	1.15E-01	7.41E-02	-4.08E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.43E-08	1.99E-11	1.53E-13	1.15E-14	7.61E-12	2.95E-12	2.79E-12	-3.54E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	9.92E-08	6.90E-10	5.59E-12	5.09E-13	2.45E-10	1.57E-10	6.99E-11	-2.29E-08
Soil quality	SQP	Pt	1.33E+01	2.00E-01	2.35E-03	1.31E-04	1.33E-01	3.40E-02	3.31E-01	-8.57E-01

Table 132 – Environmental impacts per m^2 of installed K10 SG Top Facer 25 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	5.55E+00	6.41E-02	5.39E-04	6.91E-05	2.28E-02	9.13E-03	7.68E-03	-2.15E-01
Ozone layer depletion	ODP	kg CFC-11 eq	2.25E-07	7.17E-09	4.67E-11	8.59E-12	2.34E-09	1.01E-09	2.27E-09	-1.05E-08
Acidification potential	AP	kg SO2 eq	2.84E-02	2.82E-04	2.42E-06	5.30E-07	8.73E-05	2.99E-05	4.50E-05	-2.85E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	6.40E-03	5.17E-05	5.75E-07	1.24E-07	2.06E-05	7.37E-06	1.10E-05	-1.31E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	2.71E-03	1.52E-05	1.30E-07	1.36E-08	5.61E-06	1.88E-06	1.66E-06	-1.31E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	4.53E-05	1.78E-07	1.93E-09	1.09E-11	1.17E-07	6.98E-08	8.15E-09	-1.73E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.16E+02	9.57E-01	7.60E-03	9.48E-04	3.24E-01	1.34E-01	1.89E-01	-2.55E+00

K10 SG Top Facer 30 mm

Table 133 – Environmental impacts per m^2 of installed K10 SG Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	5.56E+00	7.25E-02	2.74E-04	7.74E-05	2.58E-02	9.26E-03	8.77E-03	-2.19E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.97E-01	7.84E-06	2.61E-08	-3.73E-09	2.08E-06	9.96E-06	7.83E-08	6.76E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	6.78E-03	4.91E-06	1.81E-09	4.04E-10	2.33E-07	6.53E-08	8.51E-08	-2.14E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	5.27E+00	7.25E-02	7.74E-05	7.74E-05	2.58E-02	9.27E-03	8.77E-03	-2.20E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	2.63E-07	1.01E-08	1.20E-11	1.20E-11	3.28E-09	1.28E-09	3.20E-09	-1.33E-08
Acidification potential	AP	mol H^+ eq.	3.68E-02	6.35E-04	2.36E-06	8.17E-07	1.98E-04	5.90E-05	6.93E-05	-3.42E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.34E-03	2.14E-06	1.02E-08	3.73E-09	1.03E-06	6.97E-07	6.65E-07	-3.71E-04
Eutrophication – marine	EP - M	kg N eq.	6.09E-03	1.24E-04	8.07E-07	3.51E-07	5.22E-05	1.29E-05	2.86E-05	-4.81E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Eutrophication – terrestrial	EP - T	mol N eq.	6.56E-02	1.38E-03	8.83E-06	3.85E-06	5.72E-04	1.45E-04	3.13E-04	-5.74E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	2.31E-02	3.56E-04	9.27E-07	9.27E-07	1.42E-04	3.60E-05	7.62E-05	-1.35E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	4.85E-05	1.97E-07	8.02E-10	1.21E-11	1.29E-07	6.98E-08	9.09E-09	-1.73E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.07E+02	8.56E-01	3.04E-03	1.08E-03	3.16E-01	1.23E-01	2.21E-01	-2.10E+00
Water Depletion Potential	WDP	m^3	9.47E+01	5.83E-02	3.15E-03	1.12E-03	2.98E-01	3.33E-03	4.09E-01	-2.81E-02

Table 134 – Use of resources per m^2 of installed K10 SG Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	7.75E+00	9.30E-03	3.58E-05	4.40E-06	4.52E-03	2.57E-03	1.75E-03	-8.41E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	7.75E+00	9.30E-03	3.58E-05	4.40E-06	4.52E-03	2.57E-03	1.75E-03	-8.41E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.15E+02	9.04E-01	3.21E-03	1.15E-03	3.32E-01	1.30E-01	2.35E-01	-2.24E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.86E-01	0.00E+00	-3.86E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.15E+02	9.04E-01	-3.83E-01	1.15E-03	3.32E-01	1.30E-01	2.35E-01	-2.24E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	4.07E-02	1.24E-04	4.16E-07	7.01E-08	5.53E-05	2.44E-05	1.24E-04	8.00E-05

Table 135 – Waste generated per m^2 of installed K10 SG Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	2.73E-04	1.09E-06	3.52E-09	5.56E-10	4.88E-07	7.01E-05	8.67E-08	-3.77E-04
Non-hazardous waste disposed	NHWD	kg	5.44E-01	8.08E-03	9.18E-03	7.12E-07	2.78E-03	1.20E-03	1.19E+00	-5.24E-02
Radioactive waste disposed/stored	RWD	kg	1.14E-04	4.41E-07	3.31E-10	3.19E-10	1.93E-09	1.91E-09	1.07E-07	-6.12E-06

Table 136 – Output flows generated per m² of installed K10 SG Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.30E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 137 – Additional environmental impact per m² of installed K10 SG Top Facer 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	5.29E+00	7.13E-02	2.70E-04	7.64E-05	2.52E-02	9.11E-03	8.47E-03	-2.14E-01
Particulate matter	PM	disease incidence	3.64E-07	4.77E-09	2.12E-11	2.12E-11	1.49E-09	7.13E-10	1.31E-09	2.26E-08
Ionising radiation - human health	IRP	kBq U-235 eq	4.07E-01	3.20E-04	2.21E-06	2.21E-06	1.37E-05	1.35E-05	7.80E-04	-1.09E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.29E+02	7.35E-01	2.52E-03	5.64E-04	1.91E-01	1.15E-01	8.28E-02	-4.08E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.53E-08	2.21E-11	7.12E-14	1.27E-14	8.44E-12	2.95E-12	3.12E-12	-3.54E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.09E-07	7.65E-10	2.66E-12	5.64E-13	2.71E-10	1.57E-10	7.81E-11	-2.29E-08
Soil quality	SQP	Pt	1.36E+01	2.22E-01	1.06E-03	1.45E-04	1.48E-01	3.40E-02	3.69E-01	-8.57E-01

Table 138 – Environmental impacts per m² of installed K10 SG Top Facer 30 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	5.42E+00	7.11E-02	2.70E-04	7.66E-05	2.53E-02	9.13E-03	8.57E-03	-2.15E-01
Ozone layer depletion	ODP	kg CFC-11 eq	2.40E-07	7.95E-09	2.52E-11	9.53E-12	2.59E-09	1.01E-09	2.54E-09	-1.05E-08
Acidification potential	AP	kg SO2 eq	2.94E-02	3.13E-04	1.37E-06	5.87E-07	9.68E-05	2.99E-05	5.03E-05	-2.85E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	6.44E-03	5.73E-05	3.23E-07	1.37E-07	2.28E-05	7.37E-06	1.23E-05	-1.31E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	2.89E-03	1.68E-05	6.31E-08	1.50E-08	6.22E-06	1.88E-06	1.85E-06	-1.31E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	4.86E-05	1.97E-07	8.02E-10	1.21E-11	1.29E-07	6.98E-08	9.11E-09	-1.73E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.18E+02	1.06E+00	3.79E-03	1.05E-03	3.59E-01	1.34E-01	2.11E-01	-2.55E+00

K10 SG Top Facer 40 mm

Table 139 – Environmental impacts per m² of installed K10 SG Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	7.14E+00	9.20E-02	6.59E-04	9.82E-05	3.27E-02	9.26E-03	1.13E-02	-2.19E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.95E-01	9.95E-06	8.02E-08	-4.73E-09	2.64E-06	9.96E-06	1.01E-07	6.76E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	7.54E-03	6.23E-06	4.52E-09	5.12E-10	2.95E-07	6.53E-08	1.09E-07	-2.14E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	6.86E+00	9.20E-02	9.82E-05	9.82E-05	3.27E-02	9.27E-03	1.13E-02	-2.20E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	3.12E-07	1.27E-08	1.52E-11	1.52E-11	4.16E-09	1.28E-09	4.12E-09	-1.33E-08
Acidification potential	AP	mol H^+ eq.	4.71E-02	8.05E-04	5.44E-06	1.04E-06	2.51E-04	5.90E-05	8.92E-05	-3.42E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.57E-03	2.71E-06	2.32E-08	4.73E-09	1.30E-06	6.97E-07	8.56E-07	-3.71E-04
Eutrophication – marine	EP - M	kg N eq.	8.01E-03	1.57E-04	1.74E-06	4.46E-07	6.63E-05	1.29E-05	3.68E-05	-4.81E-04
Eutrophication – terrestrial	EP - T	mol N eq.	8.63E-02	1.74E-03	1.90E-05	4.88E-06	7.25E-04	1.45E-04	4.03E-04	-5.74E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	3.02E-02	4.51E-04	1.18E-06	1.18E-06	1.81E-04	3.60E-05	9.81E-05	-1.35E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	5.85E-05	2.50E-07	2.26E-09	1.53E-11	1.64E-07	6.98E-08	1.17E-08	-1.73E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.35E+02	1.09E+00	6.96E-03	1.37E-03	4.00E-01	1.23E-01	2.85E-01	-2.10E+00
Water Depletion Potential	WDP	m^3	9.57E+01	7.39E-02	7.20E-03	1.42E-03	3.78E-01	3.33E-03	5.27E-01	-2.81E-02

Table 140 – Use of resources per m^2 of installed K10 SG Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	8.86E+00	1.18E-02	9.50E-05	5.58E-06	5.73E-03	2.57E-03	2.25E-03	-8.41E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	8.86E+00	1.18E-02	9.50E-05	5.58E-06	5.73E-03	2.57E-03	2.25E-03	-8.41E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.45E+02	1.15E+00	7.33E-03	1.46E-03	4.22E-01	1.30E-01	3.02E-01	-2.24E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	1.10E+00	0.00E+00	-1.10E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.46E+02	1.15E+00	-1.09E+00	1.46E-03	4.22E-01	1.30E-01	3.02E-01	-2.24E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	4.88E-02	1.57E-04	1.07E-06	8.89E-08	7.02E-05	2.44E-05	1.59E-04	8.00E-05

Table 141 – Waste generated per m² of installed K10 SG Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	2.87E-04	1.39E-06	9.15E-09	7.05E-10	6.19E-07	7.01E-05	1.12E-07	-3.77E-04
Non-hazardous waste disposed	NHWD	kg	6.40E-01	1.02E-02	2.61E-02	9.03E-07	3.52E-03	1.20E-03	1.53E+00	-5.24E-02
Radioactive waste disposed/stored	RWD	kg	1.31E-04	5.59E-07	4.39E-10	4.05E-10	2.45E-09	1.91E-09	1.38E-07	-6.12E-06

Table 142 – Output flows generated per m² of installed K10 SG Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.30E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 143 – Additional environmental impact per m² of installed K10 SG Top Facer 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	6.80E+00	9.05E-02	6.46E-04	9.70E-05	3.20E-02	9.11E-03	1.09E-02	-2.14E-01
Particulate matter	PM	disease incidence	4.39E-07	6.06E-09	2.70E-11	2.70E-11	1.90E-09	7.13E-10	1.69E-09	2.26E-08
Ionising radiation - human health	IRP	kBq U-235 eq	4.50E-01	4.06E-04	2.80E-06	2.80E-06	1.74E-05	1.35E-05	1.00E-03	-1.09E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.56E+02	9.33E-01	6.29E-03	7.15E-04	2.42E-01	1.15E-01	1.07E-01	-4.08E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.86E-08	2.80E-11	1.83E-13	1.61E-14	1.07E-11	2.95E-12	4.01E-12	-3.54E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.34E-07	9.71E-10	6.67E-12	7.15E-13	3.44E-10	1.57E-10	1.00E-10	-2.29E-08
Soil quality	SQP	Pt	1.58E+01	2.81E-01	2.79E-03	1.84E-04	1.87E-01	3.40E-02	4.75E-01	-8.57E-01

Table 144 – Environmental impacts per m² of installed K10 SG Top Facer 40 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	6.96E+00	9.02E-02	6.48E-04	9.72E-05	3.21E-02	9.13E-03	1.10E-02	-2.15E-01
Ozone layer depletion	ODP	kg CFC-11 eq	2.85E-07	1.01E-08	5.68E-11	1.21E-11	3.29E-09	1.01E-09	3.27E-09	-1.05E-08
Acidification potential	AP	kg SO2 eq	3.62E-02	3.97E-04	2.97E-06	7.45E-07	1.23E-04	2.99E-05	6.48E-05	-2.85E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	7.82E-03	7.26E-05	7.03E-07	1.74E-07	2.89E-05	7.37E-06	1.59E-05	-1.31E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	3.56E-03	2.13E-05	1.56E-07	1.91E-08	7.90E-06	1.88E-06	2.38E-06	-1.31E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	5.86E-05	2.50E-07	2.26E-09	1.54E-11	1.64E-07	6.98E-08	1.17E-08	-1.73E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.51E+02	1.35E+00	9.14E-03	1.33E-03	4.55E-01	1.34E-01	2.71E-01	-2.55E+00

K10 SG Top Facer 45 mm

Table 145 – Environmental impacts per m^2 of installed K10 SG Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	7.08E+00	1.04E-01	2.67E-04	1.11E-04	3.68E-02	9.26E-03	1.28E-02	-2.19E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.96E-01	1.12E-05	1.83E-08	-5.33E-09	2.98E-06	9.96E-06	1.14E-07	6.76E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	7.82E-03	7.02E-06	1.70E-09	5.77E-10	3.33E-07	6.53E-08	1.24E-07	-2.14E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	6.79E+00	1.04E-01	1.11E-04	1.11E-04	3.68E-02	9.27E-03	1.28E-02	-2.20E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	3.38E-07	1.44E-08	1.72E-11	1.72E-11	4.68E-09	1.28E-09	4.67E-09	-1.33E-08
Acidification potential	AP	mol H^+ eq.	4.65E-02	9.08E-04	2.40E-06	1.17E-06	2.83E-04	5.90E-05	1.01E-04	-3.42E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.70E-03	3.06E-06	1.05E-08	5.33E-09	1.47E-06	6.97E-07	9.70E-07	-3.71E-04
Eutrophication – marine	EP - M	kg N eq.	7.47E-03	1.77E-04	8.64E-07	5.02E-07	7.47E-05	1.29E-05	4.17E-05	-4.81E-04
Eutrophication – terrestrial	EP - T	mol N eq.	8.04E-02	1.97E-03	9.45E-06	5.50E-06	8.17E-04	1.45E-04	4.57E-04	-5.74E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	2.98E-02	5.09E-04	1.32E-06	1.32E-06	2.04E-04	3.60E-05	1.11E-04	-1.35E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	6.42E-05	2.82E-07	6.44E-10	1.72E-11	1.85E-07	6.98E-08	1.33E-08	-1.73E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.42E+02	1.22E+00	3.10E-03	1.55E-03	4.51E-01	1.23E-01	3.23E-01	-2.10E+00
Water Depletion Potential	WDP	m^3	9.60E+01	8.33E-02	3.21E-03	1.60E-03	4.26E-01	3.33E-03	5.98E-01	-2.81E-02

Table 146 – Use of resources per m^2 of installed K10 SG Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	8.56E+00	1.33E-02	3.12E-05	6.28E-06	6.46E-03	2.57E-03	2.55E-03	-8.41E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	8.56E+00	1.33E-02	3.12E-05	6.28E-06	6.46E-03	2.57E-03	2.55E-03	-8.41E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.52E+02	1.29E+00	3.28E-03	1.64E-03	4.75E-01	1.30E-01	3.43E-01	-2.24E+00

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.06E-01	0.00E+00	-3.06E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.53E+02	1.29E+00	-3.03E-01	1.64E-03	4.75E-01	1.30E-01	3.43E-01	-2.24E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	5.24E-02	1.77E-04	3.75E-07	1.00E-07	7.91E-05	2.44E-05	1.80E-04	8.00E-05

Table 147 – Waste generated per m^2 of installed K10 SG Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	2.95E-04	1.56E-06	3.15E-09	7.94E-10	6.98E-07	7.01E-05	1.27E-07	-3.77E-04
Non-hazardous waste disposed	NHWD	kg	6.52E-01	1.15E-02	7.29E-03	1.02E-06	3.97E-03	1.20E-03	1.74E+00	-5.24E-02
Radioactive waste disposed/stored	RWD	kg	1.40E-04	6.30E-07	4.66E-10	4.56E-10	2.76E-09	1.91E-09	1.57E-07	-6.12E-06

Table 148 – Output flows generated per m^2 of installed K10 SG Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.30E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 149 – Additional environmental impact per m^2 of installed K10 SG Top Facer 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	6.72E+00	1.02E-01	2.63E-04	1.09E-04	3.61E-02	9.11E-03	1.24E-02	-2.14E-01
Particulate matter	PM	disease incidence	4.41E-07	6.82E-09	3.04E-11	3.04E-11	2.14E-09	7.13E-10	1.92E-09	2.26E-08
Ionising radiation - human health	IRP	kBq U-235 eq	4.72E-01	4.58E-04	3.15E-06	3.15E-06	1.96E-05	1.35E-05	1.14E-03	-1.09E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.70E+02	1.05E+00	2.36E-03	8.06E-04	2.72E-01	1.15E-01	1.21E-01	-4.08E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.07E-08	3.16E-11	6.46E-14	1.82E-14	1.21E-11	2.95E-12	4.55E-12	-3.54E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.45E-07	1.09E-09	2.47E-12	8.06E-13	3.88E-10	1.57E-10	1.14E-10	-2.29E-08
Soil quality	SQP	Pt	1.66E+01	3.17E-01	9.34E-04	2.08E-04	2.11E-01	3.40E-02	5.39E-01	-8.57E-01

Table 150 – Environmental impacts per m^2 of installed K10 SG Top Facer 45 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	6.88E+00	1.02E-01	2.63E-04	1.10E-04	3.62E-02	9.13E-03	1.25E-02	-2.15E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.09E-07	1.14E-08	2.61E-11	1.36E-11	3.71E-09	1.01E-09	3.70E-09	-1.05E-08
Acidification potential	AP	kg SO2 eq	3.77E-02	4.47E-04	1.46E-06	8.40E-07	1.38E-04	2.99E-05	7.34E-05	-2.85E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	8.01E-03	8.19E-05	3.43E-07	1.96E-07	3.26E-05	7.37E-06	1.80E-05	-1.31E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	3.90E-03	2.40E-05	5.97E-08	2.15E-08	8.90E-06	1.88E-06	2.70E-06	-1.31E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	6.42E-05	2.82E-07	6.44E-10	1.73E-11	1.85E-07	6.98E-08	1.33E-08	-1.73E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.57E+02	1.52E+00	3.68E-03	1.50E-03	5.13E-01	1.34E-01	3.07E-01	-2.55E+00

K10 SG Top Facer 50 mm

Table 151 – Environmental impacts per m^2 of installed K10 SG Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	8.32E+00	1.17E-01	6.21E-04	1.25E-04	4.18E-02	9.26E-03	1.46E-02	-2.19E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.94E-01	1.27E-05	6.90E-08	-6.04E-09	3.37E-06	9.96E-06	1.30E-07	6.76E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	8.35E-03	7.95E-06	4.20E-09	6.54E-10	3.77E-07	6.53E-08	1.41E-07	-2.14E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	8.04E+00	1.18E-01	1.25E-04	1.25E-04	4.18E-02	9.27E-03	1.46E-02	-2.20E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	3.67E-07	1.63E-08	1.95E-11	1.95E-11	5.31E-09	1.28E-09	5.32E-09	-1.33E-08
Acidification potential	AP	mol H^+ eq.	5.40E-02	1.03E-03	5.22E-06	1.32E-06	3.21E-04	5.90E-05	1.15E-04	-3.42E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.85E-03	3.47E-06	2.24E-08	6.04E-09	1.67E-06	6.97E-07	1.11E-06	-3.71E-04
Eutrophication – marine	EP - M	kg N eq.	9.04E-03	2.01E-04	1.71E-06	5.69E-07	8.46E-05	1.29E-05	4.76E-05	-4.81E-04
Eutrophication – terrestrial	EP - T	mol N eq.	9.73E-02	2.23E-03	1.88E-05	6.24E-06	9.26E-04	1.45E-04	5.21E-04	-5.74E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	3.54E-02	5.77E-04	1.50E-06	1.50E-06	2.31E-04	3.60E-05	1.27E-04	-1.35E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	7.06E-05	3.19E-07	2.01E-09	1.95E-11	2.10E-07	6.98E-08	1.51E-08	-1.73E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.63E+02	1.39E+00	6.69E-03	1.75E-03	5.11E-01	1.23E-01	3.68E-01	-2.10E+00
Water Depletion Potential	WDP	m^3	9.67E+01	9.45E-02	6.92E-03	1.81E-03	4.82E-01	3.33E-03	6.81E-01	-2.81E-02

Table 152 – Use of resources per m² of installed K10 SG Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	9.45E+00	1.51E-02	8.62E-05	7.12E-06	7.32E-03	2.57E-03	2.90E-03	-8.41E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	9.45E+00	1.51E-02	8.62E-05	7.12E-06	7.32E-03	2.57E-03	2.90E-03	-8.41E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.75E+02	1.46E+00	7.06E-03	1.86E-03	5.39E-01	1.30E-01	3.91E-01	-2.24E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	9.71E-01	0.00E+00	-9.71E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.76E+02	1.46E+00	-9.64E-01	1.86E-03	5.39E-01	1.30E-01	3.91E-01	-2.24E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	5.82E-02	2.01E-04	9.84E-07	1.14E-07	8.97E-05	2.44E-05	2.05E-04	8.00E-05

Table 153 – Waste generated per m² of installed K10 SG Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.04E-04	1.77E-06	8.37E-09	9.00E-10	7.91E-07	7.01E-05	1.44E-07	-3.77E-04
Non-hazardous waste disposed	NHWD	kg	7.22E-01	1.31E-02	2.31E-02	1.15E-06	4.50E-03	1.20E-03	1.98E+00	-5.24E-02
Radioactive waste disposed/stored	RWD	kg	1.51E-04	7.14E-07	5.47E-10	5.17E-10	3.13E-09	1.91E-09	1.78E-07	-6.12E-06

Table 154 – Output flows generated per m² of installed K10 SG Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.30E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 155 – Additional environmental impact per m^2 of installed K10 SG Top Facer 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	7.91E+00	1.16E-01	6.10E-04	1.24E-04	4.09E-02	9.11E-03	1.41E-02	-2.14E-01
Particulate matter	PM	disease incidence	4.96E-07	7.73E-09	3.44E-11	3.44E-11	2.42E-09	7.13E-10	2.18E-09	2.26E-08
Ionising radiation - human health	IRP	kBq U-235 eq	5.00E-01	5.19E-04	3.57E-06	3.57E-06	2.22E-05	1.35E-05	1.30E-03	-1.09E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.89E+02	1.19E+00	5.85E-03	9.14E-04	3.09E-01	1.15E-01	1.38E-01	-4.08E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.30E-08	3.58E-11	1.68E-13	2.06E-14	1.37E-11	2.95E-12	5.18E-12	-3.54E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.57E-07	1.24E-09	6.18E-12	9.13E-13	4.40E-10	1.57E-10	1.30E-10	-2.29E-08
Soil quality	SQP	Pt	1.81E+01	3.59E-01	2.54E-03	2.35E-04	2.39E-01	3.40E-02	6.14E-01	-8.57E-01

Table 156– Environmental impacts per m^2 of installed K10 SG Top Facer 50 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	8.10E+00	1.15E-01	6.11E-04	1.24E-04	4.10E-02	9.13E-03	1.43E-02	-2.15E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.35E-07	1.29E-08	5.49E-11	1.54E-11	4.20E-09	1.01E-09	4.22E-09	-1.05E-08
Acidification potential	AP	kg SO2 eq	4.22E-02	5.07E-04	2.91E-06	9.52E-07	1.57E-04	2.99E-05	8.37E-05	-2.85E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	9.04E-03	9.28E-05	6.90E-07	2.22E-07	3.69E-05	7.37E-06	2.05E-05	-1.31E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	4.36E-03	2.72E-05	1.45E-07	2.44E-08	1.01E-05	1.88E-06	3.08E-06	-1.31E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	7.07E-05	3.19E-07	2.01E-09	1.96E-11	2.10E-07	6.98E-08	1.52E-08	-1.73E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.82E+02	1.72E+00	8.60E-03	1.70E-03	5.82E-01	1.34E-01	3.50E-01	-2.55E+00

K10 SG Top Facer 60 mm

Table 157 – Environmental impacts per m^2 of installed K10 SG Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	8.98E+00	1.39E-01	3.84E-04	1.49E-04	4.95E-02	9.26E-03	1.74E-02	-2.19E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.93E-01	1.51E-05	2.85E-08	-7.15E-09	4.00E-06	9.96E-06	1.55E-07	6.76E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	9.01E-03	9.43E-06	2.46E-09	7.75E-10	4.47E-07	6.53E-08	1.69E-07	-2.14E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	8.70E+00	1.39E-01	1.49E-04	1.49E-04	4.95E-02	9.27E-03	1.74E-02	-2.20E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	4.22E-07	1.93E-08	2.31E-11	2.31E-11	6.29E-09	1.28E-09	6.35E-09	-1.33E-08
Acidification potential	AP	mol H^+ eq.	5.87E-02	1.22E-03	3.42E-06	1.57E-06	3.80E-04	5.90E-05	1.38E-04	-3.42E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.09E-03	4.11E-06	1.49E-08	7.16E-09	1.98E-06	6.97E-07	1.32E-06	-3.71E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Eutrophication – marine	EP - M	kg N eq.	9.36E-03	2.38E-04	1.22E-06	6.75E-07	1.00E-04	1.29E-05	5.67E-05	-4.81E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.01E-01	2.64E-03	1.33E-05	7.39E-06	1.10E-03	1.45E-04	6.22E-04	-5.74E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	3.82E-02	6.83E-04	1.78E-06	1.78E-06	2.73E-04	3.60E-05	1.51E-04	-1.35E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	8.17E-05	3.79E-07	9.68E-10	2.32E-11	2.48E-07	6.98E-08	1.80E-08	-1.73E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.84E+02	1.64E+00	4.42E-03	2.08E-03	6.06E-01	1.23E-01	4.39E-01	-2.10E+00
Water Depletion Potential	WDP	m^3	9.76E+01	1.12E-01	4.58E-03	2.15E-03	5.72E-01	3.33E-03	8.12E-01	-2.81E-02

Table 158 – Use of resources per m^2 of installed K10 SG Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	9.66E+00	1.79E-02	4.60E-05	8.44E-06	8.67E-03	2.57E-03	3.46E-03	-8.41E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	9.66E+00	1.79E-02	4.60E-05	8.44E-06	8.67E-03	2.57E-03	3.46E-03	-8.41E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.97E+02	1.74E+00	4.68E-03	2.21E-03	6.38E-01	1.30E-01	4.66E-01	-2.24E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	4.61E-01	0.00E+00	-4.61E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.97E+02	1.74E+00	-4.57E-01	2.21E-03	6.38E-01	1.30E-01	4.66E-01	-2.24E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	6.58E-02	2.38E-04	5.48E-07	1.35E-07	1.06E-04	2.44E-05	2.45E-04	8.00E-05

Table 159 – Waste generated per m^2 of installed K10 SG Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.20E-04	2.10E-06	4.62E-09	1.07E-09	9.37E-07	7.01E-05	1.72E-07	-3.77E-04
Non-hazardous waste disposed	NHWD	kg	7.80E-01	1.55E-02	1.10E-02	1.37E-06	5.33E-03	1.20E-03	2.36E+00	-5.24E-02
Radioactive waste disposed/stored	RWD	kg	1.69E-04	8.46E-07	6.27E-10	6.13E-10	3.71E-09	1.91E-09	2.13E-07	-6.12E-06

Table 160 – Output flows generated per m² of installed K10 SG Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.30E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 161 – Additional environmental impact per m² of installed K10 SG Top Facer 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	8.52E+00	1.37E-01	3.78E-04	1.47E-04	4.85E-02	9.11E-03	1.68E-02	-2.14E-01
Particulate matter	PM	disease incidence	5.36E-07	9.17E-09	4.08E-11	4.08E-11	2.87E-09	7.13E-10	2.60E-09	2.26E-08
Ionising radiation - human health	IRP	kBq U-235 eq	5.45E-01	6.15E-04	4.24E-06	4.24E-06	2.63E-05	1.35E-05	1.55E-03	-1.09E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.17E+02	1.41E+00	3.43E-03	1.08E-03	3.66E-01	1.15E-01	1.64E-01	-4.08E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.65E-08	4.25E-11	9.44E-14	2.44E-14	1.62E-11	2.95E-12	6.18E-12	-3.54E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.87E-07	1.47E-09	3.59E-12	1.08E-12	5.21E-10	1.57E-10	1.55E-10	-2.29E-08
Soil quality	SQP	Pt	1.99E+01	4.26E-01	1.37E-03	2.79E-04	2.84E-01	3.40E-02	7.33E-01	-8.57E-01

Table 162 – Environmental impacts per m² of installed K10 SG Top Facer 60 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	8.73E+00	1.37E-01	3.79E-04	1.47E-04	4.86E-02	9.13E-03	1.70E-02	-2.15E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.86E-07	1.53E-08	3.71E-11	1.83E-11	4.98E-09	1.01E-09	5.04E-09	-1.05E-08
Acidification potential	AP	kg SO2 eq	4.76E-02	6.00E-04	2.06E-06	1.13E-06	1.86E-04	2.99E-05	9.98E-05	-2.85E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	9.88E-03	1.10E-04	4.85E-07	2.63E-07	4.38E-05	7.37E-06	2.45E-05	-1.31E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	5.04E-03	3.23E-05	8.64E-08	2.89E-08	1.20E-05	1.88E-06	3.67E-06	-1.31E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	8.17E-05	3.79E-07	9.68E-10	2.33E-11	2.48E-07	6.98E-08	1.81E-08	-1.73E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.03E+02	2.04E+00	5.30E-03	2.02E-03	6.89E-01	1.34E-01	4.18E-01	-2.55E+00

K10 SG Top Facer 70 mm

Table 163 – Environmental impacts per m² of installed K10 SG Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.00E+01	1.64E-01	2.79E-04	1.75E-04	5.84E-02	9.26E-03	2.06E-02	-2.19E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.92E-01	1.78E-05	7.29E-09	-8.44E-09	4.71E-06	9.96E-06	1.84E-07	6.76E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	9.80E-03	1.11E-05	1.66E-09	9.14E-10	5.27E-07	6.53E-08	2.00E-07	-2.14E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	9.73E+00	1.64E-01	1.75E-04	1.75E-04	5.84E-02	9.27E-03	2.06E-02	-2.20E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	4.81E-07	2.28E-08	2.72E-11	2.72E-11	7.42E-09	1.28E-09	7.53E-09	-1.33E-08
Acidification potential	AP	mol H^+ eq.	6.53E-02	1.44E-03	2.67E-06	1.85E-06	4.48E-04	5.90E-05	1.63E-04	-3.42E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.37E-03	4.85E-06	1.19E-08	8.44E-09	2.33E-06	6.97E-07	1.56E-06	-3.71E-04
Eutrophication – marine	EP - M	kg N eq.	1.02E-02	2.81E-04	1.04E-06	7.96E-07	1.18E-04	1.29E-05	6.73E-05	-4.81E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.09E-01	3.11E-03	1.13E-05	8.71E-06	1.29E-03	1.45E-04	7.37E-04	-5.74E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	4.28E-02	8.06E-04	2.10E-06	2.10E-06	3.22E-04	3.60E-05	1.79E-04	-1.35E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	9.40E-05	4.46E-07	4.44E-10	2.73E-11	2.93E-07	6.98E-08	2.14E-08	-1.73E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.10E+02	1.94E+00	3.49E-03	2.45E-03	7.15E-01	1.23E-01	5.20E-01	-2.10E+00
Water Depletion Potential	WDP	m^3	9.86E+01	1.32E-01	3.61E-03	2.53E-03	6.74E-01	3.33E-03	9.63E-01	-2.81E-02

Table 164 – Use of resources per m^2 of installed K10 SG Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	1.01E+01	2.11E-02	2.65E-05	9.95E-06	1.02E-02	2.57E-03	4.11E-03	-8.41E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	1.01E+01	2.11E-02	2.65E-05	9.95E-06	1.02E-02	2.57E-03	4.11E-03	-8.41E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.25E+02	2.05E+00	3.69E-03	2.60E-03	7.53E-01	1.30E-01	5.53E-01	-2.24E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	2.03E-01	0.00E+00	-2.03E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	2.25E+02	2.05E+00	-2.00E-01	2.60E-03	7.53E-01	1.30E-01	5.53E-01	-2.24E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	7.49E-02	2.80E-04	3.41E-07	1.59E-07	1.25E-04	2.44E-05	2.91E-04	8.00E-05

Table 165 – Waste generated per m² of installed K10 SG Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.38E-04	2.47E-06	2.82E-09	1.26E-09	1.11E-06	7.01E-05	2.04E-07	-3.77E-04
Non-hazardous waste disposed	NHWD	kg	8.58E-01	1.83E-02	4.84E-03	1.61E-06	6.29E-03	1.20E-03	2.80E+00	-5.24E-02
Radioactive waste disposed/stored	RWD	kg	1.89E-04	9.98E-07	7.29E-10	7.23E-10	4.37E-09	1.91E-09	2.52E-07	-6.12E-06

Table 166 – Output flows generated per m² of installed K10 SG Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.30E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 167 – Additional environmental impact per m² of installed K10 SG Top Facer 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	9.49E+00	1.62E-01	2.75E-04	1.73E-04	5.72E-02	9.11E-03	1.99E-02	-2.14E-01
Particulate matter	PM	disease incidence	5.90E-07	1.08E-08	4.81E-11	4.81E-11	3.39E-09	7.13E-10	3.09E-09	2.26E-08
Ionising radiation - human health	IRP	kBq U-235 eq	5.95E-01	7.25E-04	5.00E-06	5.00E-06	3.11E-05	1.35E-05	1.83E-03	-1.09E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.49E+02	1.67E+00	2.31E-03	1.28E-03	4.31E-01	1.15E-01	1.95E-01	-4.08E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	3.07E-08	5.01E-11	5.96E-14	2.88E-14	1.91E-11	2.95E-12	7.33E-12	-3.54E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.16E-07	1.73E-09	2.38E-12	1.28E-12	6.14E-10	1.57E-10	1.84E-10	-2.29E-08
Soil quality	SQP	Pt	2.21E+01	5.02E-01	8.11E-04	3.29E-04	3.34E-01	3.40E-02	8.69E-01	-8.57E-01

Table 168 – Environmental impacts per m² of installed K10 SG Top Facer 70 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	9.72E+00	1.61E-01	2.76E-04	1.73E-04	5.73E-02	9.13E-03	2.02E-02	-2.15E-01
Ozone layer depletion	ODP	kg CFC-11 eq	4.40E-07	1.80E-08	2.98E-11	2.16E-11	5.87E-09	1.01E-09	5.97E-09	-1.05E-08
Acidification potential	AP	kg SO2 eq	5.38E-02	7.08E-04	1.74E-06	1.33E-06	2.19E-04	2.99E-05	1.18E-04	-2.85E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.10E-02	1.30E-04	4.08E-07	3.10E-07	5.16E-05	7.37E-06	2.90E-05	-1.31E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	5.83E-03	3.81E-05	5.94E-08	3.41E-08	1.41E-05	1.88E-06	4.35E-06	-1.31E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	9.41E-05	4.46E-07	4.44E-10	2.74E-11	2.93E-07	6.98E-08	2.14E-08	-1.73E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.32E+02	2.40E+00	3.82E-03	2.38E-03	8.13E-01	1.34E-01	4.95E-01	-2.55E+00

K10 SG Top Facer 80 mm

Table 169 – Environmental impacts per m^2 of installed K10 SG Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.19E+01	2.00E-01	3.34E-04	2.14E-04	7.12E-02	9.26E-03	2.53E-02	-2.19E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.90E-01	2.17E-05	7.89E-09	-1.03E-08	5.75E-06	9.96E-06	2.26E-07	6.76E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	1.10E-02	1.36E-05	1.97E-09	1.12E-09	6.42E-07	6.53E-08	2.45E-07	-2.14E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.17E+01	2.00E-01	2.14E-04	2.14E-04	7.12E-02	9.27E-03	2.53E-02	-2.20E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	5.64E-07	2.78E-08	3.32E-11	3.32E-11	9.05E-09	1.28E-09	9.23E-09	-1.33E-08
Acidification potential	AP	mol H^+ eq.	7.65E-02	1.75E-03	3.20E-06	2.26E-06	5.47E-04	5.90E-05	2.00E-04	-3.42E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.79E-03	5.91E-06	1.42E-08	1.03E-08	2.84E-06	6.97E-07	1.92E-06	-3.71E-04
Eutrophication – marine	EP - M	kg N eq.	1.20E-02	3.42E-04	1.25E-06	9.71E-07	1.44E-04	1.29E-05	8.25E-05	-4.81E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.29E-01	3.80E-03	1.37E-05	1.06E-05	1.58E-03	1.45E-04	9.04E-04	-5.74E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	5.12E-02	9.83E-04	2.56E-06	2.56E-06	3.93E-04	3.60E-05	2.20E-04	-1.35E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.12E-04	5.45E-07	5.15E-10	3.33E-11	3.57E-07	6.98E-08	2.62E-08	-1.73E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.53E+02	2.36E+00	4.19E-03	2.99E-03	8.72E-01	1.23E-01	6.38E-01	-2.10E+00
Water Depletion Potential	WDP	m^3	1.00E+02	1.61E-01	4.33E-03	3.09E-03	8.22E-01	3.33E-03	1.18E+00	-2.81E-02

Table 170 – Use of resources per m^2 of installed K10 SG Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	1.12E+01	2.57E-02	3.13E-05	1.21E-05	1.25E-02	2.57E-03	5.04E-03	-8.41E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	1.12E+01	2.57E-02	3.13E-05	1.21E-05	1.25E-02	2.57E-03	5.04E-03	-8.41E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.71E+02	2.50E+00	4.43E-03	3.18E-03	9.18E-01	1.30E-01	6.78E-01	-2.24E+00

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	2.35E-01	0.00E+00	-2.35E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	2.71E+02	2.50E+00	-2.31E-01	3.18E-03	9.18E-01	1.30E-01	6.78E-01	-2.24E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	8.88E-02	3.42E-04	4.04E-07	1.94E-07	1.53E-04	2.44E-05	3.56E-04	8.00E-05

Table 171 – Waste generated per m^2 of installed K10 SG Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.63E-04	3.02E-06	3.34E-09	1.53E-09	1.35E-06	7.01E-05	2.50E-07	-3.77E-04
Non-hazardous waste disposed	NHWD	kg	9.90E-01	2.23E-02	5.60E-03	1.97E-06	7.67E-03	1.20E-03	3.44E+00	-5.24E-02
Radioactive waste disposed/stored	RWD	kg	2.19E-04	1.22E-06	8.89E-10	8.82E-10	5.33E-09	1.91E-09	3.09E-07	-6.12E-06

Table 172 – Output flows generated per m^2 of installed K10 SG Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.30E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 173 – Additional environmental impact per m^2 of installed K10 SG Top Facer 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.13E+01	1.97E-01	3.29E-04	2.11E-04	6.97E-02	9.11E-03	2.44E-02	-2.14E-01
Particulate matter	PM	disease incidence	6.80E-07	1.32E-08	5.87E-11	5.87E-11	4.13E-09	7.13E-10	3.79E-09	2.26E-08
Ionising radiation - human health	IRP	kBq U-235 eq	6.70E-01	8.84E-04	6.09E-06	6.09E-06	3.79E-05	1.35E-05	2.25E-03	-1.09E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.99E+02	2.03E+00	2.75E-03	1.56E-03	5.26E-01	1.15E-01	2.39E-01	-4.08E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	3.73E-08	6.11E-11	7.08E-14	3.52E-14	2.33E-11	2.95E-12	8.99E-12	-3.54E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.51E-07	2.11E-09	2.83E-12	1.56E-12	7.49E-10	1.57E-10	2.25E-10	-2.29E-08
Soil quality	SQP	Pt	2.57E+01	6.13E-01	9.59E-04	4.01E-04	4.08E-01	3.40E-02	1.07E+00	-8.57E-01

Table 174 – Environmental impacts per m^2 of installed K10 SG Top Facer 80 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.16E+01	1.96E-01	3.30E-04	2.12E-04	6.99E-02	9.13E-03	2.47E-02	-2.15E-01
Ozone layer depletion	ODP	kg CFC-11 eq	5.16E-07	2.20E-08	3.59E-11	2.63E-11	7.16E-09	1.01E-09	7.32E-09	-1.05E-08
Acidification potential	AP	kg SO2 eq	6.30E-02	8.64E-04	2.10E-06	1.62E-06	2.67E-04	2.99E-05	1.45E-04	-2.85E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.29E-02	1.58E-04	4.92E-07	3.78E-07	6.29E-05	7.37E-06	3.56E-05	-1.31E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	7.03E-03	4.65E-05	7.09E-08	4.16E-08	1.72E-05	1.88E-06	5.34E-06	-1.31E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.12E-04	5.45E-07	5.15E-10	3.35E-11	3.57E-07	6.98E-08	2.63E-08	-1.73E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.79E+02	2.93E+00	4.57E-03	2.90E-03	9.92E-01	1.34E-01	6.07E-01	-2.55E+00

K10 SG Top Facer 90 mm

Table 175 – Environmental impacts per m^2 of installed K10 SG Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.28E+01	2.20E-01	2.96E-04	2.35E-04	7.81E-02	9.26E-03	2.78E-02	-2.19E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.89E-01	2.38E-05	-2.05E-09	-1.13E-08	6.31E-06	9.96E-06	2.48E-07	6.76E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	1.16E-02	1.49E-05	1.66E-09	1.22E-09	7.04E-07	6.53E-08	2.70E-07	-2.14E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.25E+01	2.20E-01	2.35E-04	2.35E-04	7.81E-02	9.27E-03	2.78E-02	-2.20E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	6.09E-07	3.04E-08	3.64E-11	3.64E-11	9.92E-09	1.28E-09	1.01E-08	-1.33E-08
Acidification potential	AP	mol H^+ eq.	8.21E-02	1.92E-03	2.95E-06	2.47E-06	6.00E-04	5.90E-05	2.20E-04	-3.42E-03
Eutrophication – freshwater	EP - F	kg P eq.	3.00E-03	6.48E-06	1.33E-08	1.13E-08	3.12E-06	6.97E-07	2.11E-06	-3.71E-04
Eutrophication – marine	EP - M	kg N eq.	1.27E-02	3.75E-04	1.21E-06	1.06E-06	1.58E-04	1.29E-05	9.06E-05	-4.81E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.36E-01	4.16E-03	1.32E-05	1.17E-05	1.73E-03	1.45E-04	9.93E-04	-5.74E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	5.49E-02	1.08E-03	2.81E-06	2.81E-06	4.31E-04	3.60E-05	2.42E-04	-1.35E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.21E-04	5.97E-07	2.81E-10	3.65E-11	3.92E-07	6.98E-08	2.88E-08	-1.73E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.73E+02	2.59E+00	3.89E-03	3.28E-03	9.56E-01	1.23E-01	7.01E-01	-2.10E+00
Water Depletion Potential	WDP	m^3	1.01E+02	1.77E-01	4.02E-03	3.39E-03	9.01E-01	3.33E-03	1.30E+00	-2.81E-02

Table 176 – Use of resources per m² of installed K10 SG Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	1.16E+01	2.82E-02	2.30E-05	1.33E-05	1.37E-02	2.57E-03	5.53E-03	-8.41E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	1.16E+01	2.82E-02	2.30E-05	1.33E-05	1.37E-02	2.57E-03	5.53E-03	-8.41E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.93E+02	2.74E+00	4.12E-03	3.48E-03	1.01E+00	1.30E-01	7.45E-01	-2.24E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	1.19E-01	0.00E+00	-1.19E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	2.93E+02	2.74E+00	-1.15E-01	3.48E-03	1.01E+00	1.30E-01	7.45E-01	-2.24E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	9.57E-02	3.75E-04	3.19E-07	2.12E-07	1.68E-04	2.44E-05	3.92E-04	8.00E-05

Table 177 – Waste generated per m² of installed K10 SG Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.77E-04	3.31E-06	2.60E-09	1.68E-09	1.48E-06	7.01E-05	2.75E-07	-3.77E-04
Non-hazardous waste disposed	NHWD	kg	1.05E+00	2.45E-02	2.84E-03	2.16E-06	8.41E-03	1.20E-03	3.78E+00	-5.24E-02
Radioactive waste disposed/stored	RWD	kg	2.34E-04	1.33E-06	9.70E-10	9.67E-10	5.85E-09	1.91E-09	3.40E-07	-6.12E-06

Table 178 – Output flows generated per m² of installed K10 SG Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.30E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 179 – Additional environmental impact per m^2 of installed K10 SG Top Facer 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.21E+01	2.16E-01	2.91E-04	2.32E-04	7.64E-02	9.11E-03	2.68E-02	-2.14E-01
Particulate matter	PM	disease incidence	7.25E-07	1.45E-08	6.44E-11	6.44E-11	4.53E-09	7.13E-10	4.16E-09	2.26E-08
Ionising radiation - human health	IRP	kBq U-235 eq	7.09E-01	9.69E-04	6.68E-06	6.68E-06	4.15E-05	1.35E-05	2.47E-03	-1.09E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	3.23E+02	2.23E+00	2.31E-03	1.71E-03	5.77E-01	1.15E-01	2.62E-01	-4.08E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	4.03E-08	6.69E-11	5.67E-14	3.86E-14	2.56E-11	2.95E-12	9.88E-12	-3.54E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.74E-07	2.32E-09	2.36E-12	1.71E-12	8.22E-10	1.57E-10	2.47E-10	-2.29E-08
Soil quality	SQP	Pt	2.74E+01	6.72E-01	7.23E-04	4.40E-04	4.47E-01	3.40E-02	1.17E+00	-8.57E-01

Table 180 – Environmental impacts per m^2 of installed K10 SG Top Facer 90 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.24E+01	2.15E-01	2.92E-04	2.32E-04	7.67E-02	9.13E-03	2.72E-02	-2.15E-01
Ozone layer depletion	ODP	kg CFC-11 eq	5.57E-07	2.41E-08	3.37E-11	2.89E-11	7.85E-09	1.01E-09	8.04E-09	-1.05E-08
Acidification potential	AP	kg SO2 eq	6.80E-02	9.47E-04	2.02E-06	1.78E-06	2.93E-04	2.99E-05	1.59E-04	-2.85E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.38E-02	1.73E-04	4.73E-07	4.15E-07	6.90E-05	7.37E-06	3.91E-05	-1.31E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	7.62E-03	5.09E-05	6.05E-08	4.56E-08	1.89E-05	1.88E-06	5.87E-06	-1.31E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.21E-04	5.97E-07	2.81E-10	3.67E-11	3.92E-07	6.98E-08	2.89E-08	-1.73E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	3.02E+02	3.21E+00	4.03E-03	3.18E-03	1.09E+00	1.34E-01	6.67E-01	-2.55E+00

K10 SG Top Facer 100 mm

Table 181 – Environmental impacts per m^2 of installed K10 SG Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.47E+01	2.58E-01	2.95E-04	2.75E-04	9.16E-02	9.26E-03	3.27E-02	-2.19E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-2.86E-01	2.79E-05	-1.02E-08	-1.32E-08	7.40E-06	9.96E-06	2.92E-07	6.76E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	1.30E-02	1.74E-05	1.58E-09	1.43E-09	8.27E-07	6.53E-08	3.17E-07	-2.14E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.45E+01	2.58E-01	2.75E-04	2.75E-04	9.16E-02	9.27E-03	3.27E-02	-2.20E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	6.99E-07	3.57E-08	4.27E-11	4.27E-11	1.16E-08	1.28E-09	1.19E-08	-1.33E-08
Acidification potential	AP	mol H^+ eq.	9.35E-02	2.26E-03	3.06E-06	2.90E-06	7.04E-04	5.90E-05	2.59E-04	-3.42E-03
Eutrophication – freshwater	EP - F	kg P eq.	3.45E-03	7.61E-06	1.39E-08	1.32E-08	3.66E-06	6.97E-07	2.48E-06	-3.71E-04
Eutrophication – marine	EP - M	kg N eq.	1.45E-02	4.41E-04	1.30E-06	1.25E-06	1.86E-04	1.29E-05	1.07E-04	-4.81E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Eutrophication – terrestrial	EP - T	mol N eq.	1.55E-01	4.89E-03	1.42E-05	1.37E-05	2.03E-03	1.45E-04	1.17E-03	-5.74E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	6.35E-02	1.26E-03	3.29E-06	3.29E-06	5.06E-04	3.60E-05	2.85E-04	-1.35E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.41E-04	7.01E-07	1.24E-10	4.28E-11	4.60E-07	6.98E-08	3.39E-08	-1.73E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	3.18E+02	3.04E+00	4.05E-03	3.85E-03	1.12E+00	1.23E-01	8.25E-01	-2.10E+00
Water Depletion Potential	WDP	m^3	1.03E+02	2.07E-01	4.19E-03	3.98E-03	1.06E+00	3.33E-03	1.53E+00	-2.81E-02

Table 182 – Use of resources per m^2 of installed K10 SG Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	1.27E+01	3.31E-02	1.88E-05	1.56E-05	1.61E-02	2.57E-03	6.51E-03	-8.41E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	1.27E+01	3.31E-02	1.88E-05	1.56E-05	1.61E-02	2.57E-03	6.51E-03	-8.41E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	3.41E+02	3.21E+00	4.30E-03	4.09E-03	1.18E+00	1.30E-01	8.77E-01	-2.24E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.96E-02	0.00E+00	-3.96E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	3.41E+02	3.21E+00	-3.53E-02	4.09E-03	1.18E+00	1.30E-01	8.77E-01	-2.24E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	1.10E-01	4.40E-04	2.85E-07	2.49E-07	1.97E-04	2.44E-05	4.61E-04	8.00E-05

Table 183 – Waste generated per m^2 of installed K10 SG Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	4.03E-04	3.88E-06	2.28E-09	1.97E-09	1.73E-06	7.01E-05	3.24E-07	-3.77E-04
Non-hazardous waste disposed	NHWD	kg	1.19E+00	2.87E-02	9.44E-04	2.53E-06	9.87E-03	1.20E-03	4.45E+00	-5.24E-02
Radioactive waste disposed/stored	RWD	kg	2.66E-04	1.57E-06	1.14E-09	1.13E-09	6.86E-09	1.91E-09	4.00E-07	-6.12E-06

Table 184 – Output flows generated per m² of installed K10 SG Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.30E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 185 – Additional environmental impact per m² of installed K10 SG Top Facer 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.39E+01	2.54E-01	2.91E-04	2.72E-04	8.97E-02	9.11E-03	3.16E-02	-2.14E-01
Particulate matter	PM	disease incidence	8.18E-07	1.70E-08	7.55E-11	7.55E-11	5.31E-09	7.13E-10	4.90E-09	2.26E-08
Ionising radiation - human health	IRP	kBq U-235 eq	7.89E-01	1.14E-03	7.84E-06	7.84E-06	4.88E-05	1.35E-05	2.91E-03	-1.09E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	3.76E+02	2.61E+00	2.21E-03	2.00E-03	6.77E-01	1.15E-01	3.09E-01	-4.08E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	4.73E-08	7.86E-11	5.12E-14	4.52E-14	3.00E-11	2.95E-12	1.16E-11	-3.54E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	3.13E-07	2.72E-09	2.22E-12	2.00E-12	9.64E-10	1.57E-10	2.91E-10	-2.29E-08
Soil quality	SQP	Pt	3.11E+01	7.88E-01	6.10E-04	5.16E-04	5.25E-01	3.40E-02	1.38E+00	-8.57E-01

Table 186 – Environmental impacts per m² of installed K10 SG Top Facer 100 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.43E+01	2.53E-01	2.92E-04	2.72E-04	9.00E-02	9.13E-03	3.20E-02	-2.15E-01
Ozone layer depletion	ODP	kg CFC-11 eq	6.39E-07	2.83E-08	3.55E-11	3.39E-11	9.21E-09	1.01E-09	9.47E-09	-1.05E-08
Acidification potential	AP	kg SO2 eq	7.77E-02	1.11E-03	2.17E-06	2.09E-06	3.44E-04	2.99E-05	1.88E-04	-2.85E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.58E-02	2.04E-04	5.06E-07	4.87E-07	8.10E-05	7.37E-06	4.60E-05	-1.31E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	8.90E-03	5.98E-05	5.84E-08	5.35E-08	2.21E-05	1.88E-06	6.91E-06	-1.31E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.41E-04	7.01E-07	1.24E-10	4.30E-11	4.60E-07	6.98E-08	3.40E-08	-1.73E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	3.51E+02	3.77E+00	4.02E-03	3.73E-03	1.28E+00	1.34E-01	7.86E-01	-2.55E+00

K10 Plus 25 mm

Table 187 – Environmental impacts per m² of installed K10 Plus 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.05E+01	6.00E-01	1.12E-03	6.41E-04	2.13E-01	9.82E-03	7.70E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-1.76E-01	6.49E-05	4.16E-08	-3.08E-08	1.72E-05	1.06E-05	6.88E-07	7.17E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	5.44E-03	4.06E-05	6.76E-09	3.34E-09	1.93E-06	6.92E-08	7.47E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.03E+01	6.00E-01	6.41E-04	6.41E-04	2.13E-01	9.83E-03	7.70E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	3.43E-07	8.32E-08	9.94E-11	9.94E-11	2.71E-08	1.36E-09	2.81E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	5.95E-02	5.26E-03	1.05E-05	6.76E-06	1.64E-03	6.26E-05	6.09E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.37E-03	1.77E-05	4.66E-08	3.09E-08	8.52E-06	7.39E-07	5.84E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.19E-02	1.03E-03	4.01E-06	2.91E-06	4.32E-04	1.37E-05	2.51E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.31E-01	1.14E-02	4.39E-05	3.19E-05	4.73E-03	1.54E-04	2.75E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	3.90E-02	2.95E-03	7.67E-06	7.67E-06	1.18E-03	3.82E-05	6.70E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	4.85E-05	1.63E-06	2.02E-09	9.98E-11	1.07E-06	7.40E-08	7.98E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.37E+02	7.09E+00	1.37E-02	8.96E-03	2.61E+00	1.31E-01	1.94E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.76E+02	4.83E-01	1.42E-02	9.27E-03	2.46E+00	3.53E-03	3.60E+00	-2.98E-02

Table 188 – Use of resources per m^2 of installed K10 Plus 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	8.10E+00	7.70E-02	1.13E-04	3.64E-05	3.74E-02	2.72E-03	1.53E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	8.10E+00	7.70E-02	1.13E-04	3.64E-05	3.74E-02	2.72E-03	1.53E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.45E+02	7.48E+00	1.45E-02	9.52E-03	2.75E+00	1.37E-01	2.06E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	9.36E-01	0.00E+00	-9.36E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.45E+02	7.48E+00	-9.22E-01	9.52E-03	2.75E+00	1.37E-01	2.06E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	7.49E-02	1.02E-03	1.42E-06	5.81E-07	4.58E-04	2.59E-05	1.08E-03	8.48E-05

Table 189 – Waste generated per m² of installed K10 Plus 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	2.90E-04	9.04E-06	1.18E-08	4.60E-09	4.04E-06	7.43E-05	7.62E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	7.94E-01	6.69E-02	2.23E-02	5.90E-06	2.30E-02	1.27E-03	1.05E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	1.31E-04	3.65E-06	2.67E-09	2.64E-09	1.60E-08	2.03E-09	9.42E-07	-6.48E-06

Table 190 – Output flows generated per m² of installed K10 Plus 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 191 – Additional environmental impact per m² of installed K10 Plus 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.02E+01	5.91E-01	1.10E-03	6.33E-04	2.09E-01	9.65E-03	7.44E-02	-2.27E-01
Particulate matter	PM	disease incidence	5.34E-07	3.95E-08	1.76E-10	1.76E-10	1.24E-08	7.56E-10	1.15E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	5.03E-01	2.65E-03	1.83E-05	1.83E-05	1.14E-04	1.43E-05	6.85E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.49E+02	6.09E+00	9.43E-03	4.67E-03	1.58E+00	1.22E-01	7.27E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.50E-08	1.83E-10	2.47E-13	1.05E-13	6.99E-11	3.12E-12	2.74E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.15E-07	6.34E-09	9.75E-12	4.67E-12	2.25E-09	1.67E-10	6.85E-10	-2.43E-08
Soil quality	SQP	Pt	2.49E+01	1.84E+00	3.42E-03	1.20E-03	1.22E+00	3.61E-02	3.24E+00	-9.09E-01

Table 192 – Environmental impacts per m² of installed K10 Plus 25 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.03E+01	5.89E-01	1.10E-03	6.34E-04	2.10E-01	9.68E-03	7.53E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.05E-07	6.58E-08	1.17E-10	7.89E-11	2.15E-08	1.08E-09	2.23E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	3.93E-02	2.59E-03	6.76E-06	4.86E-06	8.01E-04	3.17E-05	4.42E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	8.50E-03	4.74E-04	1.59E-06	1.13E-06	1.89E-04	7.82E-06	1.08E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	3.04E-03	1.39E-04	2.41E-07	1.25E-07	5.15E-05	1.99E-06	1.63E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	4.86E-05	1.63E-06	2.02E-09	1.00E-10	1.07E-06	7.40E-08	8.00E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.55E+02	8.79E+00	1.54E-02	8.70E-03	2.97E+00	1.42E-01	1.85E+00	-2.71E+00

K10 Plus 30 mm

Table 193 – Environmental impacts per m^2 of installed K10 Plus 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.04E+01	6.07E-01	8.46E-04	6.49E-04	2.16E-01	9.82E-03	7.79E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-1.76E-01	6.57E-05	-1.38E-09	-3.12E-08	1.74E-05	1.06E-05	6.96E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	5.58E-03	4.11E-05	4.79E-09	3.38E-09	1.95E-06	6.92E-08	7.56E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.02E+01	6.08E-01	6.49E-04	6.49E-04	2.16E-01	9.83E-03	7.79E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	3.59E-07	8.42E-08	1.01E-10	1.01E-10	2.75E-08	1.36E-09	2.84E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	5.90E-02	5.32E-03	8.39E-06	6.84E-06	1.66E-03	6.26E-05	6.16E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.44E-03	1.79E-05	3.77E-08	3.12E-08	8.62E-06	7.39E-07	5.91E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.14E-02	1.04E-03	3.40E-06	2.94E-06	4.38E-04	1.37E-05	2.54E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.26E-01	1.15E-02	3.72E-05	3.22E-05	4.79E-03	1.54E-04	2.78E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	3.84E-02	2.98E-03	7.76E-06	7.76E-06	1.19E-03	3.82E-05	6.78E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	5.18E-05	1.65E-06	8.91E-10	1.01E-10	1.08E-06	7.40E-08	8.08E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.40E+02	7.17E+00	1.10E-02	9.07E-03	2.64E+00	1.31E-01	1.97E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.76E+02	4.88E-01	1.14E-02	9.38E-03	2.49E+00	3.53E-03	3.64E+00	-2.98E-02

Table 194 – Use of resources per m^2 of installed K10 Plus 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	7.84E+00	7.79E-02	6.82E-05	3.68E-05	3.78E-02	2.72E-03	1.55E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	7.84E+00	7.79E-02	6.82E-05	3.68E-05	3.78E-02	2.72E-03	1.55E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.48E+02	7.57E+00	1.17E-02	9.63E-03	2.79E+00	1.37E-01	2.09E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.86E-01	0.00E+00	-3.86E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Primary non renewable energy - total	PENRT	MJ	1.48E+02	7.57E+00	-3.74E-01	9.63E-03	2.79E+00	1.37E-01	2.09E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	7.69E-02	1.04E-03	9.33E-07	5.87E-07	4.64E-04	2.59E-05	1.10E-03	8.48E-05

Table 195 – Waste generated per m^2 of installed K10 Plus 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	2.96E-04	9.15E-06	7.62E-09	4.65E-09	4.09E-06	7.43E-05	7.71E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	7.96E-01	6.77E-02	9.19E-03	5.97E-06	2.33E-02	1.27E-03	1.06E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	1.36E-04	3.69E-06	2.69E-09	2.67E-09	1.62E-08	2.03E-09	9.53E-07	-6.48E-06

Table 196 – Output flows generated per m^2 of installed K10 Plus 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 197 – Additional environmental impact per m^2 of installed K10 Plus 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.00E+01	5.98E-01	8.34E-04	6.40E-04	2.11E-01	9.65E-03	7.53E-02	-2.27E-01
Particulate matter	PM	disease incidence	5.34E-07	4.00E-08	1.78E-10	1.78E-10	1.25E-08	7.56E-10	1.17E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	5.14E-01	2.68E-03	1.85E-05	1.85E-05	1.15E-04	1.43E-05	6.93E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.57E+02	6.16E+00	6.68E-03	4.72E-03	1.60E+00	1.22E-01	7.36E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.60E-08	1.85E-10	1.65E-13	1.07E-13	7.07E-11	3.12E-12	2.77E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.25E-07	6.41E-09	6.82E-12	4.72E-12	2.27E-09	1.67E-10	6.94E-10	-2.43E-08
Soil quality	SQP	Pt	2.53E+01	1.86E+00	2.13E-03	1.22E-03	1.24E+00	3.61E-02	3.28E+00	-9.09E-01

Table 198 – Environmental impacts per m^2 of installed K10 Plus 30 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.02E+01	5.96E-01	8.35E-04	6.42E-04	2.12E-01	9.68E-03	7.62E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.21E-07	6.66E-08	9.55E-11	7.98E-11	2.17E-08	1.08E-09	2.25E-08	-1.11E-08

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Acidification potential	AP	kg SO2 eq	4.03E-02	2.62E-03	5.70E-06	4.92E-06	8.11E-04	3.17E-05	4.47E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	8.53E-03	4.80E-04	1.33E-06	1.15E-06	1.91E-04	7.82E-06	1.10E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	3.22E-03	1.41E-04	1.74E-07	1.26E-07	5.21E-05	1.99E-06	1.65E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	5.19E-05	1.65E-06	8.92E-10	1.01E-10	1.08E-06	7.40E-08	8.09E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.56E+02	8.89E+00	1.15E-02	8.80E-03	3.01E+00	1.42E-01	1.87E+00	-2.71E+00

K10 Plus 40 mm

Table 199 – Environmental impacts per m^2 of installed K10 Plus 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.20E+01	6.27E-01	1.23E-03	6.70E-04	2.23E-01	9.82E-03	8.04E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-1.74E-01	6.78E-05	5.27E-08	-3.22E-08	1.80E-05	1.06E-05	7.19E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	6.34E-03	4.24E-05	7.50E-09	3.49E-09	2.01E-06	6.92E-08	7.80E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.18E+01	6.27E-01	6.69E-04	6.69E-04	2.23E-01	9.83E-03	8.04E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	4.08E-07	8.69E-08	1.04E-10	1.04E-10	2.83E-08	1.36E-09	2.94E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	6.93E-02	5.49E-03	1.15E-05	7.06E-06	1.71E-03	6.26E-05	6.36E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.67E-03	1.85E-05	5.07E-08	3.22E-08	8.89E-06	7.39E-07	6.10E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.33E-02	1.07E-03	4.33E-06	3.04E-06	4.52E-04	1.37E-05	2.62E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.46E-01	1.19E-02	4.74E-05	3.33E-05	4.94E-03	1.54E-04	2.87E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	4.54E-02	3.08E-03	8.01E-06	8.01E-06	1.23E-03	3.82E-05	6.99E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	6.18E-05	1.70E-06	2.35E-09	1.04E-10	1.12E-06	7.40E-08	8.34E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.68E+02	7.40E+00	1.49E-02	9.36E-03	2.73E+00	1.31E-01	2.03E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.77E+02	5.04E-01	1.55E-02	9.68E-03	2.57E+00	3.53E-03	3.76E+00	-2.98E-02

Table 200 – Use of resources per m² of installed K10 Plus 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	8.96E+00	8.04E-02	1.27E-04	3.80E-05	3.91E-02	2.72E-03	1.60E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	8.96E+00	8.04E-02	1.27E-04	3.80E-05	3.91E-02	2.72E-03	1.60E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.78E+02	7.81E+00	1.58E-02	9.94E-03	2.87E+00	1.37E-01	2.16E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	1.10E+00	0.00E+00	-1.10E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.79E+02	7.81E+00	-1.08E+00	9.94E-03	2.87E+00	1.37E-01	2.16E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	8.50E-02	1.07E-03	1.59E-06	6.06E-07	4.79E-04	2.59E-05	1.13E-03	8.48E-05

Table 201 – Waste generated per m² of installed K10 Plus 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.10E-04	9.45E-06	1.33E-08	4.80E-09	4.22E-06	7.43E-05	7.96E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	8.92E-01	6.98E-02	2.61E-02	6.16E-06	2.40E-02	1.27E-03	1.09E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	1.53E-04	3.81E-06	2.79E-09	2.76E-09	1.67E-08	2.03E-09	9.84E-07	-6.48E-06

Table 202 – Output flows generated per m² of installed K10 Plus 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 203 – Additional environmental impact per m^2 of installed K10 Plus 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.15E+01	6.17E-01	1.21E-03	6.61E-04	2.18E-01	9.65E-03	7.77E-02	-2.27E-01
Particulate matter	PM	disease incidence	6.09E-07	4.13E-08	1.84E-10	1.84E-10	1.29E-08	7.56E-10	1.20E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	5.58E-01	2.77E-03	1.91E-05	1.91E-05	1.19E-04	1.43E-05	7.15E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.84E+02	6.36E+00	1.05E-02	4.88E-03	1.65E+00	1.22E-01	7.59E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.93E-08	1.91E-10	2.76E-13	1.10E-13	7.30E-11	3.12E-12	2.86E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.51E-07	6.62E-09	1.08E-11	4.87E-12	2.35E-09	1.67E-10	7.16E-10	-2.43E-08
Soil quality	SQP	Pt	2.75E+01	1.92E+00	3.86E-03	1.26E-03	1.28E+00	3.61E-02	3.39E+00	-9.09E-01

Table 204 – Environmental impacts per m^2 of installed K10 Plus 40 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.17E+01	6.15E-01	1.21E-03	6.62E-04	2.19E-01	9.68E-03	7.87E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.65E-07	6.87E-08	1.27E-10	8.24E-11	2.24E-08	1.08E-09	2.33E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	4.70E-02	2.70E-03	7.30E-06	5.08E-06	8.37E-04	3.17E-05	4.62E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	9.91E-03	4.95E-04	1.71E-06	1.18E-06	1.97E-04	7.82E-06	1.13E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	3.89E-03	1.45E-04	2.67E-07	1.30E-07	5.38E-05	1.99E-06	1.70E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	6.18E-05	1.70E-06	2.35E-09	1.05E-10	1.12E-06	7.40E-08	8.36E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.89E+02	9.18E+00	1.69E-02	9.08E-03	3.10E+00	1.42E-01	1.93E+00	-2.71E+00

K10 Plus 45 mm

Table 205 – Environmental impacts per m^2 of installed K10 Plus 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.19E+01	6.39E-01	8.38E-04	6.82E-04	2.27E-01	9.82E-03	8.19E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-1.74E-01	6.91E-05	-9.14E-09	-3.28E-08	1.83E-05	1.06E-05	7.32E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	6.62E-03	4.32E-05	4.67E-09	3.56E-09	2.05E-06	6.92E-08	7.95E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.17E+01	6.39E-01	6.82E-04	6.82E-04	2.27E-01	9.83E-03	8.19E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	4.34E-07	8.85E-08	1.06E-10	1.06E-10	2.89E-08	1.36E-09	2.99E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	6.86E-02	5.59E-03	8.42E-06	7.20E-06	1.74E-03	6.26E-05	6.48E-04	-3.63E-03

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Eutrophication – freshwater	EP - F	kg P eq.	1.79E-03	1.89E-05	3.80E-08	3.28E-08	9.06E-06	7.39E-07	6.21E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.28E-02	1.09E-03	3.46E-06	3.10E-06	4.60E-04	1.37E-05	2.67E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.40E-01	1.21E-02	3.78E-05	3.39E-05	5.04E-03	1.54E-04	2.93E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	4.51E-02	3.13E-03	8.16E-06	8.16E-06	1.25E-03	3.82E-05	7.13E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	6.75E-05	1.74E-06	7.33E-10	1.06E-10	1.14E-06	7.40E-08	8.49E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.75E+02	7.54E+00	1.11E-02	9.53E-03	2.78E+00	1.31E-01	2.07E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.77E+02	5.13E-01	1.15E-02	9.86E-03	2.62E+00	3.53E-03	3.83E+00	-2.98E-02

Table 206 – Use of resources per m^2 of installed K10 Plus 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	8.66E+00	8.19E-02	6.37E-05	3.87E-05	3.98E-02	2.72E-03	1.63E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	8.66E+00	8.19E-02	6.37E-05	3.87E-05	3.98E-02	2.72E-03	1.63E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.86E+02	7.96E+00	1.18E-02	1.01E-02	2.93E+00	1.37E-01	2.20E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.06E-01	0.00E+00	-3.06E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.86E+02	7.96E+00	-2.94E-01	1.01E-02	2.93E+00	1.37E-01	2.20E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	8.86E-02	1.09E-03	8.92E-07	6.18E-07	4.87E-04	2.59E-05	1.15E-03	8.48E-05

Table 207 – Waste generated per m^2 of installed K10 Plus 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.18E-04	9.62E-06	7.25E-09	4.89E-09	4.30E-06	7.43E-05	8.10E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	9.04E-01	7.11E-02	7.29E-03	6.27E-06	2.45E-02	1.27E-03	1.11E+01	-5.56E-02

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Radioactive waste disposed/stored	RWD	kg	1.62E-04	3.88E-06	2.82E-09	2.81E-09	1.70E-08	2.03E-09	1.00E-06	-6.48E-06

Table 208 – Output flows generated per m^2 of installed K10 Plus 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 209 – Additional environmental impact per m^2 of installed K10 Plus 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.15E+01	6.28E-01	8.27E-04	6.73E-04	2.22E-01	9.65E-03	7.92E-02	-2.27E-01
Particulate matter	PM	disease incidence	6.10E-07	4.20E-08	1.87E-10	1.87E-10	1.32E-08	7.56E-10	1.23E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	5.79E-01	2.82E-03	1.94E-05	1.94E-05	1.21E-04	1.43E-05	7.29E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.99E+02	6.48E+00	6.52E-03	4.97E-03	1.68E+00	1.22E-01	7.74E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.14E-08	1.95E-10	1.59E-13	1.12E-13	7.43E-11	3.12E-12	2.91E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.61E-07	6.74E-09	6.63E-12	4.97E-12	2.39E-09	1.67E-10	7.30E-10	-2.43E-08
Soil quality	SQP	Pt	2.82E+01	1.95E+00	2.01E-03	1.28E-03	1.30E+00	3.61E-02	3.45E+00	-9.09E-01

Table 210 – Environmental impacts per m^2 of installed K10 Plus 45 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.16E+01	6.26E-01	8.28E-04	6.75E-04	2.23E-01	9.68E-03	8.01E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.89E-07	7.00E-08	9.64E-11	8.39E-11	2.28E-08	1.08E-09	2.37E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	4.86E-02	2.75E-03	5.79E-06	5.17E-06	8.52E-04	3.17E-05	4.70E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.01E-02	5.04E-04	1.35E-06	1.21E-06	2.01E-04	7.82E-06	1.15E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	4.24E-03	1.48E-04	1.71E-07	1.33E-07	5.48E-05	1.99E-06	1.73E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	6.75E-05	1.74E-06	7.34E-10	1.07E-10	1.14E-06	7.40E-08	8.51E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.95E+02	9.35E+00	1.14E-02	9.25E-03	3.16E+00	1.42E-01	1.97E+00	-2.71E+00

K10 Plus 50 mm

Table 211 – Environmental impacts per m^2 of installed K10 Plus 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.31E+01	6.52E-01	1.19E-03	6.97E-04	2.32E-01	9.82E-03	8.37E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-1.73E-01	7.06E-05	4.15E-08	-3.35E-08	1.87E-05	1.06E-05	7.48E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	7.15E-03	4.42E-05	7.18E-09	3.63E-09	2.09E-06	6.92E-08	8.12E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.30E+01	6.53E-01	6.97E-04	6.97E-04	2.32E-01	9.83E-03	8.37E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	4.64E-07	9.04E-08	1.08E-10	1.08E-10	2.95E-08	1.36E-09	3.06E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	7.61E-02	5.71E-03	1.12E-05	7.35E-06	1.78E-03	6.26E-05	6.62E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.95E-03	1.93E-05	4.99E-08	3.35E-08	9.26E-06	7.39E-07	6.35E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.43E-02	1.12E-03	4.31E-06	3.16E-06	4.70E-04	1.37E-05	2.73E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.57E-01	1.24E-02	4.72E-05	3.46E-05	5.14E-03	1.54E-04	2.99E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	5.06E-02	3.20E-03	8.34E-06	8.34E-06	1.28E-03	3.82E-05	7.28E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	7.39E-05	1.77E-06	2.10E-09	1.08E-10	1.16E-06	7.40E-08	8.68E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.96E+02	7.70E+00	1.47E-02	9.74E-03	2.84E+00	1.31E-01	2.11E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.78E+02	5.25E-01	1.52E-02	1.01E-02	2.68E+00	3.53E-03	3.91E+00	-2.98E-02

Table 212 – Use of resources per m^2 of installed K10 Plus 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	9.55E+00	8.37E-02	1.19E-04	3.96E-05	4.06E-02	2.72E-03	1.67E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	9.55E+00	8.37E-02	1.19E-04	3.96E-05	4.06E-02	2.72E-03	1.67E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.08E+02	8.13E+00	1.55E-02	1.03E-02	2.99E+00	1.37E-01	2.24E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	9.71E-01	0.00E+00	-9.71E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Primary non renewable energy - total	PENRT	MJ	2.09E+02	8.13E+00	-9.55E-01	1.03E-02	2.99E+00	1.37E-01	2.24E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	9.44E-02	1.11E-03	1.50E-06	6.31E-07	4.98E-04	2.59E-05	1.18E-03	8.48E-05

Table 213 – Waste generated per m^2 of installed K10 Plus 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.27E-04	9.83E-06	1.25E-08	5.00E-09	4.39E-06	7.43E-05	8.28E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	9.74E-01	7.27E-02	2.31E-02	6.41E-06	2.50E-02	1.27E-03	1.14E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	1.73E-04	3.96E-06	2.90E-09	2.87E-09	1.74E-08	2.03E-09	1.02E-06	-6.48E-06

Table 214 – Output flows generated per m^2 of installed K10 Plus 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 215 – Additional environmental impact per m^2 of installed K10 Plus 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.26E+01	6.42E-01	1.17E-03	6.88E-04	2.27E-01	9.65E-03	8.09E-02	-2.27E-01
Particulate matter	PM	disease incidence	6.65E-07	4.30E-08	1.91E-10	1.91E-10	1.35E-08	7.56E-10	1.25E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	6.08E-01	2.88E-03	1.99E-05	1.99E-05	1.23E-04	1.43E-05	7.45E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.17E+02	6.62E+00	1.00E-02	5.07E-03	1.71E+00	1.22E-01	7.91E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.37E-08	1.99E-10	2.62E-13	1.15E-13	7.59E-11	3.12E-12	2.98E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.73E-07	6.89E-09	1.03E-11	5.07E-12	2.44E-09	1.67E-10	7.45E-10	-2.43E-08
Soil quality	SQP	Pt	2.98E+01	2.00E+00	3.61E-03	1.31E-03	1.33E+00	3.61E-02	3.53E+00	-9.09E-01

Table 216– Environmental impacts per m^2 of installed K10 Plus 50 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.28E+01	6.40E-01	1.18E-03	6.89E-04	2.28E-01	9.68E-03	8.19E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	4.16E-07	7.15E-08	1.25E-10	8.57E-11	2.33E-08	1.08E-09	2.42E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	5.31E-02	2.81E-03	7.25E-06	5.28E-06	8.71E-04	3.17E-05	4.80E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.11E-02	5.15E-04	1.70E-06	1.23E-06	2.05E-04	7.82E-06	1.18E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	4.70E-03	1.51E-04	2.56E-07	1.35E-07	5.60E-05	1.99E-06	1.77E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	7.39E-05	1.77E-06	2.10E-09	1.09E-10	1.16E-06	7.40E-08	8.70E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.20E+02	9.55E+00	1.64E-02	9.45E-03	3.23E+00	1.42E-01	2.01E+00	-2.71E+00

K10 Plus 60 mm

Table 217 – Environmental impacts per m^2 of installed K10 Plus 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.38E+01	6.74E-01	9.56E-04	7.20E-04	2.40E-01	9.82E-03	8.65E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-1.72E-01	7.29E-05	1.03E-09	-3.46E-08	1.94E-05	1.06E-05	7.73E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	7.81E-03	4.56E-05	5.44E-09	3.75E-09	2.16E-06	6.92E-08	8.40E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.36E+01	6.74E-01	7.20E-04	7.20E-04	2.40E-01	9.83E-03	8.65E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	5.19E-07	9.35E-08	1.12E-10	1.12E-10	3.05E-08	1.36E-09	3.16E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	8.09E-02	5.90E-03	9.45E-06	7.60E-06	1.84E-03	6.26E-05	6.84E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.19E-03	1.99E-05	4.24E-08	3.46E-08	9.57E-06	7.39E-07	6.56E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.47E-02	1.15E-03	3.81E-06	3.27E-06	4.86E-04	1.37E-05	2.82E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.61E-01	1.28E-02	4.17E-05	3.58E-05	5.32E-03	1.54E-04	3.09E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	5.35E-02	3.31E-03	8.62E-06	8.62E-06	1.32E-03	3.82E-05	7.53E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	8.50E-05	1.83E-06	1.06E-09	1.12E-10	1.20E-06	7.40E-08	8.97E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.16E+02	7.96E+00	1.24E-02	1.01E-02	2.93E+00	1.31E-01	2.18E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.79E+02	5.42E-01	1.28E-02	1.04E-02	2.77E+00	3.53E-03	4.04E+00	-2.98E-02

Table 218 – Use of resources per m² of installed K10 Plus 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	9.76E+00	8.65E-02	7.85E-05	4.09E-05	4.20E-02	2.72E-03	1.72E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	9.76E+00	8.65E-02	7.85E-05	4.09E-05	4.20E-02	2.72E-03	1.72E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.30E+02	8.40E+00	1.32E-02	1.07E-02	3.09E+00	1.37E-01	2.32E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	4.61E-01	0.00E+00	-4.61E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	2.31E+02	8.40E+00	-4.48E-01	1.07E-02	3.09E+00	1.37E-01	2.32E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	1.02E-01	1.15E-03	1.07E-06	6.52E-07	5.15E-04	2.59E-05	1.22E-03	8.48E-05

Table 219 – Waste generated per m² of installed K10 Plus 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.43E-04	1.02E-05	8.72E-09	5.17E-09	4.54E-06	7.43E-05	8.56E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	1.03E+00	7.51E-02	1.10E-02	6.62E-06	2.58E-02	1.27E-03	1.18E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	1.91E-04	4.10E-06	2.98E-09	2.97E-09	1.79E-08	2.03E-09	1.06E-06	-6.48E-06

Table 220 – Output flows generated per m² of installed K10 Plus 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 221 – Additional environmental impact per m^2 of installed K10 Plus 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.33E+01	6.63E-01	9.42E-04	7.11E-04	2.35E-01	9.65E-03	8.36E-02	-2.27E-01
Particulate matter	PM	disease incidence	7.06E-07	4.44E-08	1.98E-10	1.98E-10	1.39E-08	7.56E-10	1.30E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	6.52E-01	2.98E-03	2.05E-05	2.05E-05	1.28E-04	1.43E-05	7.70E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.45E+02	6.84E+00	7.59E-03	5.24E-03	1.77E+00	1.22E-01	8.17E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.72E-08	2.06E-10	1.88E-13	1.18E-13	7.85E-11	3.12E-12	3.08E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.03E-07	7.12E-09	7.75E-12	5.24E-12	2.52E-09	1.67E-10	7.71E-10	-2.43E-08
Soil quality	SQP	Pt	3.16E+01	2.06E+00	2.44E-03	1.35E-03	1.37E+00	3.61E-02	3.65E+00	-9.09E-01

Table 222 – Environmental impacts per m^2 of installed K10 Plus 60 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.35E+01	6.61E-01	9.44E-04	7.12E-04	2.35E-01	9.68E-03	8.46E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	4.67E-07	7.39E-08	1.07E-10	8.86E-11	2.41E-08	1.08E-09	2.50E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	5.84E-02	2.91E-03	6.39E-06	5.46E-06	9.00E-04	3.17E-05	4.97E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.20E-02	5.32E-04	1.50E-06	1.27E-06	2.12E-04	7.82E-06	1.22E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	5.37E-03	1.56E-04	1.97E-07	1.40E-07	5.79E-05	1.99E-06	1.83E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	8.50E-05	1.83E-06	1.06E-09	1.13E-10	1.20E-06	7.40E-08	8.99E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.41E+02	9.87E+00	1.30E-02	9.77E-03	3.34E+00	1.42E-01	2.08E+00	-2.71E+00

K10 Plus 70 mm

Table 223 – Environmental impacts per m^2 of installed K10 Plus 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.48E+01	6.99E-01	8.51E-04	7.47E-04	2.49E-01	9.82E-03	8.98E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-1.71E-01	7.56E-05	-2.02E-08	-3.59E-08	2.01E-05	1.06E-05	8.02E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	8.60E-03	4.73E-05	4.64E-09	3.89E-09	2.24E-06	6.92E-08	8.71E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.47E+01	6.99E-01	7.47E-04	7.47E-04	2.49E-01	9.83E-03	8.98E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	5.78E-07	9.69E-08	1.16E-10	1.16E-10	3.16E-08	1.36E-09	3.28E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	8.75E-02	6.12E-03	8.69E-06	7.88E-06	1.91E-03	6.26E-05	7.10E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.46E-03	2.06E-05	3.94E-08	3.59E-08	9.92E-06	7.39E-07	6.81E-06	-3.94E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Eutrophication – marine	EP - M	kg N eq.	1.55E-02	1.20E-03	3.63E-06	3.39E-06	5.04E-04	1.37E-05	2.93E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.69E-01	1.33E-02	3.97E-05	3.71E-05	5.51E-03	1.54E-04	3.21E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	5.80E-02	3.43E-03	8.94E-06	8.94E-06	1.37E-03	3.82E-05	7.81E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	9.73E-05	1.90E-06	5.33E-10	1.16E-10	1.25E-06	7.40E-08	9.31E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.43E+02	8.25E+00	1.15E-02	1.04E-02	3.04E+00	1.31E-01	2.26E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.80E+02	5.62E-01	1.19E-02	1.08E-02	2.87E+00	3.53E-03	4.19E+00	-2.98E-02

Table 224 – Use of resources per m^2 of installed K10 Plus 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	1.02E+01	8.97E-02	5.89E-05	4.24E-05	4.35E-02	2.72E-03	1.79E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	1.02E+01	8.97E-02	5.89E-05	4.24E-05	4.35E-02	2.72E-03	1.79E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.58E+02	8.71E+00	1.22E-02	1.11E-02	3.21E+00	1.37E-01	2.41E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	2.03E-01	0.00E+00	-2.03E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	2.59E+02	8.71E+00	-1.91E-01	1.11E-02	3.21E+00	1.37E-01	2.41E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	1.11E-01	1.19E-03	8.58E-07	6.76E-07	5.34E-04	2.59E-05	1.26E-03	8.48E-05

Table 225 – Waste generated per m^2 of installed K10 Plus 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.61E-04	1.05E-05	6.92E-09	5.36E-09	4.71E-06	7.43E-05	8.88E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	1.11E+00	7.79E-02	4.85E-03	6.87E-06	2.68E-02	1.27E-03	1.22E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	2.11E-04	4.25E-06	3.08E-09	3.08E-09	1.86E-08	2.03E-09	1.10E-06	-6.48E-06

Table 226 – Output flows generated per m² of installed K10 Plus 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 227 – Additional environmental impact per m² of installed K10 Plus 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.42E+01	6.88E-01	8.39E-04	7.37E-04	2.43E-01	9.65E-03	8.67E-02	-2.27E-01
Particulate matter	PM	disease incidence	7.60E-07	4.60E-08	2.05E-10	2.05E-10	1.44E-08	7.56E-10	1.34E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	7.03E-01	3.09E-03	2.13E-05	2.13E-05	1.32E-04	1.43E-05	7.98E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.77E+02	7.09E+00	6.47E-03	5.44E-03	1.84E+00	1.22E-01	8.48E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	3.14E-08	2.13E-10	1.54E-13	1.23E-13	8.14E-11	3.12E-12	3.19E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.33E-07	7.38E-09	6.54E-12	5.44E-12	2.62E-09	1.67E-10	7.99E-10	-2.43E-08
Soil quality	SQP	Pt	3.38E+01	2.14E+00	1.88E-03	1.40E-03	1.42E+00	3.61E-02	3.78E+00	-9.09E-01

Table 228 – Environmental impacts per m² of installed K10 Plus 70 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.45E+01	6.85E-01	8.41E-04	7.39E-04	2.44E-01	9.68E-03	8.78E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	5.21E-07	7.66E-08	1.00E-10	9.19E-11	2.50E-08	1.08E-09	2.60E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	6.47E-02	3.01E-03	6.07E-06	5.66E-06	9.33E-04	3.17E-05	5.15E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.31E-02	5.52E-04	1.42E-06	1.32E-06	2.20E-04	7.82E-06	1.26E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	6.16E-03	1.62E-04	1.70E-07	1.45E-07	6.00E-05	1.99E-06	1.90E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	9.73E-05	1.90E-06	5.33E-10	1.17E-10	1.25E-06	7.40E-08	9.33E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.70E+02	1.02E+01	1.16E-02	1.01E-02	3.46E+00	1.42E-01	2.16E+00	-2.71E+00

K10 Plus 80 mm

Table 229 – Environmental impacts per m² of installed K10 Plus 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.68E+01	7.35E-01	9.05E-04	7.85E-04	2.61E-01	9.82E-03	9.44E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-1.69E-01	7.95E-05	-1.96E-08	-3.78E-08	2.11E-05	1.06E-05	8.44E-07	7.17E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	9.85E-03	4.98E-05	4.95E-09	4.09E-09	2.36E-06	6.92E-08	9.16E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.66E+01	7.35E-01	7.85E-04	7.85E-04	2.61E-01	9.83E-03	9.44E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	6.60E-07	1.02E-07	1.22E-10	1.22E-10	3.32E-08	1.36E-09	3.45E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	9.87E-02	6.44E-03	9.23E-06	8.28E-06	2.01E-03	6.26E-05	7.46E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.88E-03	2.17E-05	4.17E-08	3.78E-08	1.04E-05	7.39E-07	7.16E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.73E-02	1.26E-03	3.84E-06	3.56E-06	5.30E-04	1.37E-05	3.08E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.89E-01	1.39E-02	4.21E-05	3.90E-05	5.80E-03	1.54E-04	3.37E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	6.65E-02	3.61E-03	9.40E-06	9.40E-06	1.44E-03	3.82E-05	8.21E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.15E-04	2.00E-06	6.04E-10	1.22E-10	1.31E-06	7.40E-08	9.79E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.85E+02	8.68E+00	1.22E-02	1.10E-02	3.20E+00	1.31E-01	2.38E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.82E+02	5.91E-01	1.26E-02	1.14E-02	3.02E+00	3.53E-03	4.41E+00	-2.98E-02

Table 230 – Use of resources per m^2 of installed K10 Plus 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	1.13E+01	9.43E-02	6.37E-05	4.46E-05	4.58E-02	2.72E-03	1.88E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	1.13E+01	9.43E-02	6.37E-05	4.46E-05	4.58E-02	2.72E-03	1.88E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	3.04E+02	9.16E+00	1.29E-02	1.17E-02	3.37E+00	1.37E-01	2.53E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	2.35E-01	0.00E+00	-2.35E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	3.05E+02	9.16E+00	-2.22E-01	1.17E-02	3.37E+00	1.37E-01	2.53E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	1.25E-01	1.26E-03	9.22E-07	7.11E-07	5.61E-04	2.59E-05	1.33E-03	8.48E-05

Table 231 – Waste generated per m² of installed K10 Plus 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.86E-04	1.11E-05	7.44E-09	5.63E-09	4.95E-06	7.43E-05	9.34E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	1.24E+00	8.19E-02	5.60E-03	7.22E-06	2.82E-02	1.27E-03	1.28E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	2.41E-04	4.47E-06	3.24E-09	3.24E-09	1.96E-08	2.03E-09	1.16E-06	-6.48E-06

Table 232 – Output flows generated per m² of installed K10 Plus 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 233 – Additional environmental impact per m² of installed K10 Plus 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.60E+01	7.23E-01	8.93E-04	7.75E-04	2.56E-01	9.65E-03	9.12E-02	-2.27E-01
Particulate matter	PM	disease incidence	8.50E-07	4.84E-08	2.15E-10	2.15E-10	1.52E-08	7.56E-10	1.41E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	7.78E-01	3.25E-03	2.24E-05	2.24E-05	1.39E-04	1.43E-05	8.40E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	3.27E+02	7.46E+00	6.91E-03	5.72E-03	1.93E+00	1.22E-01	8.92E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	3.79E-08	2.24E-10	1.65E-13	1.29E-13	8.56E-11	3.12E-12	3.36E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.67E-07	7.76E-09	6.99E-12	5.72E-12	2.75E-09	1.67E-10	8.41E-10	-2.43E-08
Soil quality	SQP	Pt	3.73E+01	2.25E+00	2.03E-03	1.47E-03	1.50E+00	3.61E-02	3.98E+00	-9.09E-01

Table 234 – Environmental impacts per m² of installed K10 Plus 80 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.63E+01	7.21E-01	8.95E-04	7.77E-04	2.57E-01	9.68E-03	9.24E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	5.96E-07	8.06E-08	1.06E-10	9.66E-11	2.63E-08	1.08E-09	2.73E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	7.38E-02	3.17E-03	6.43E-06	5.96E-06	9.81E-04	3.17E-05	5.42E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.50E-02	5.81E-04	1.50E-06	1.39E-06	2.31E-04	7.82E-06	1.33E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	7.36E-03	1.71E-04	1.82E-07	1.53E-07	6.31E-05	1.99E-06	1.99E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.15E-04	2.00E-06	6.04E-10	1.23E-10	1.31E-06	7.40E-08	9.81E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	3.18E+02	1.08E+01	1.23E-02	1.07E-02	3.64E+00	1.42E-01	2.27E+00	-2.71E+00

K10 Plus 90 mm

Table 235 – Environmental impacts per m^2 of installed K10 Plus 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.76E+01	7.55E-01	8.67E-04	8.06E-04	2.68E-01	9.82E-03	9.69E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-1.67E-01	8.16E-05	-2.95E-08	-3.88E-08	2.17E-05	1.06E-05	8.66E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	1.04E-02	5.11E-05	4.64E-09	4.20E-09	2.42E-06	6.92E-08	9.41E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.74E+01	7.55E-01	8.06E-04	8.06E-04	2.68E-01	9.83E-03	9.69E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	7.06E-07	1.05E-07	1.25E-10	1.25E-10	3.41E-08	1.36E-09	3.54E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	1.04E-01	6.61E-03	8.98E-06	8.50E-06	2.06E-03	6.26E-05	7.66E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	3.09E-03	2.23E-05	4.08E-08	3.88E-08	1.07E-05	7.39E-07	7.35E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.80E-02	1.29E-03	3.80E-06	3.66E-06	5.44E-04	1.37E-05	3.16E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.96E-01	1.43E-02	4.16E-05	4.00E-05	5.95E-03	1.54E-04	3.46E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	7.02E-02	3.70E-03	9.64E-06	9.64E-06	1.48E-03	3.82E-05	8.43E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.25E-04	2.05E-06	3.70E-10	1.25E-10	1.35E-06	7.40E-08	1.00E-07	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	3.06E+02	8.91E+00	1.19E-02	1.13E-02	3.28E+00	1.31E-01	2.45E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.82E+02	6.07E-01	1.23E-02	1.16E-02	3.10E+00	3.53E-03	4.53E+00	-2.98E-02

Table 236 – Use of resources per m^2 of installed K10 Plus 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	1.17E+01	9.68E-02	5.55E-05	4.57E-05	4.70E-02	2.72E-03	1.93E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	1.17E+01	9.68E-02	5.55E-05	4.57E-05	4.70E-02	2.72E-03	1.93E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	3.26E+02	9.40E+00	1.26E-02	1.20E-02	3.46E+00	1.37E-01	2.60E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	1.19E-01	0.00E+00	-1.19E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Primary non renewable energy - total	PENRT	MJ	3.26E+02	9.40E+00	-1.07E-01	1.20E-02	3.46E+00	1.37E-01	2.60E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	1.32E-01	1.29E-03	8.37E-07	7.30E-07	5.76E-04	2.59E-05	1.37E-03	8.48E-05

Table 237 – Waste generated per m^2 of installed K10 Plus 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	4.00E-04	1.14E-05	6.70E-09	5.78E-09	5.08E-06	7.43E-05	9.59E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	1.30E+00	8.41E-02	2.85E-03	7.41E-06	2.89E-02	1.27E-03	1.32E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	2.56E-04	4.58E-06	3.32E-09	3.32E-09	2.01E-08	2.03E-09	1.19E-06	-6.48E-06

Table 238 – Output flows generated per m^2 of installed K10 Plus 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 239 – Additional environmental impact per m^2 of installed K10 Plus 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.68E+01	7.42E-01	8.55E-04	7.96E-04	2.63E-01	9.65E-03	9.36E-02	-2.27E-01
Particulate matter	PM	disease incidence	8.94E-07	4.97E-08	2.21E-10	2.21E-10	1.56E-08	7.56E-10	1.45E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	8.16E-01	3.33E-03	2.30E-05	2.30E-05	1.43E-04	1.43E-05	8.62E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	3.51E+02	7.65E+00	6.48E-03	5.87E-03	1.98E+00	1.22E-01	9.15E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	4.10E-08	2.30E-10	1.51E-13	1.32E-13	8.78E-11	3.12E-12	3.44E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.91E-07	7.97E-09	6.51E-12	5.87E-12	2.82E-09	1.67E-10	8.63E-10	-2.43E-08
Soil quality	SQP	Pt	3.90E+01	2.31E+00	1.79E-03	1.51E-03	1.54E+00	3.61E-02	4.08E+00	-9.09E-01

Table 240 – Environmental impacts per m^2 of installed K10 Plus 90 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.71E+01	7.40E-01	8.57E-04	7.97E-04	2.63E-01	9.68E-03	9.48E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	6.38E-07	8.27E-08	1.04E-10	9.91E-11	2.70E-08	1.08E-09	2.81E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	7.89E-02	3.25E-03	6.35E-06	6.11E-06	1.01E-03	3.17E-05	5.56E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.59E-02	5.96E-04	1.48E-06	1.43E-06	2.37E-04	7.82E-06	1.36E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	7.95E-03	1.75E-04	1.71E-07	1.57E-07	6.48E-05	1.99E-06	2.05E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.25E-04	2.05E-06	3.71E-10	1.26E-10	1.35E-06	7.40E-08	1.01E-07	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	3.40E+02	1.10E+01	1.18E-02	1.09E-02	3.74E+00	1.42E-01	2.33E+00	-2.71E+00

K10 Plus 100 mm

Table 241 – Environmental impacts per m^2 of installed K10 Plus 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.95E+01	7.93E-01	8.67E-04	8.46E-04	2.82E-01	9.82E-03	1.02E-01	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	-1.65E-01	8.57E-05	-3.77E-08	-4.07E-08	2.28E-05	1.06E-05	9.10E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	1.18E-02	5.37E-05	4.56E-09	4.41E-09	2.54E-06	6.92E-08	9.88E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.94E+01	7.93E-01	8.46E-04	8.46E-04	2.82E-01	9.83E-03	1.02E-01	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	7.95E-07	1.10E-07	1.31E-10	1.31E-10	3.58E-08	1.36E-09	3.72E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	1.16E-01	6.94E-03	9.09E-06	8.93E-06	2.16E-03	6.26E-05	8.05E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	3.54E-03	2.34E-05	4.14E-08	4.07E-08	1.12E-05	7.39E-07	7.72E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.98E-02	1.36E-03	3.89E-06	3.84E-06	5.71E-04	1.37E-05	3.32E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	2.15E-01	1.50E-02	4.26E-05	4.21E-05	6.25E-03	1.54E-04	3.64E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	7.87E-02	3.89E-03	1.01E-05	1.01E-05	1.56E-03	3.82E-05	8.86E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.44E-04	2.16E-06	2.13E-10	1.32E-10	1.41E-06	7.40E-08	1.06E-07	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	3.50E+02	9.36E+00	1.20E-02	1.18E-02	3.45E+00	1.31E-01	2.57E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.84E+02	6.37E-01	1.24E-02	1.22E-02	3.25E+00	3.53E-03	4.76E+00	-2.98E-02

Table 242 – Use of resources per m² of installed K10 Plus 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	1.28E+01	1.02E-01	5.13E-05	4.81E-05	4.94E-02	2.72E-03	2.03E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	1.28E+01	1.02E-01	5.13E-05	4.81E-05	4.94E-02	2.72E-03	2.03E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	3.74E+02	9.88E+00	1.28E-02	1.26E-02	3.63E+00	1.37E-01	2.73E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.96E-02	0.00E+00	-3.96E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	3.74E+02	9.88E+00	-2.68E-02	1.26E-02	3.63E+00	1.37E-01	2.73E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	1.47E-01	1.35E-03	8.02E-07	7.66E-07	6.05E-04	2.59E-05	1.44E-03	8.48E-05

Table 243 – Waste generated per m² of installed K10 Plus 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	4.26E-04	1.19E-05	6.38E-09	6.07E-09	5.33E-06	7.43E-05	1.01E-06	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	1.44E+00	8.83E-02	9.49E-04	7.79E-06	3.04E-02	1.27E-03	1.38E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	2.88E-04	4.82E-06	3.49E-09	3.49E-09	2.11E-08	2.03E-09	1.25E-06	-6.48E-06

Table 244 – Output flows generated per m² of installed K10 Plus 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 245 – Additional environmental impact per m^2 of installed K10 Plus 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.87E+01	7.80E-01	8.55E-04	8.36E-04	2.76E-01	9.65E-03	9.84E-02	-2.27E-01
Particulate matter	PM	disease incidence	9.87E-07	5.22E-08	2.32E-10	2.32E-10	1.63E-08	7.56E-10	1.52E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	8.97E-01	3.50E-03	2.41E-05	2.41E-05	1.50E-04	1.43E-05	9.06E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	4.04E+02	8.04E+00	6.37E-03	6.16E-03	2.08E+00	1.22E-01	9.62E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	4.80E-08	2.42E-10	1.45E-13	1.39E-13	9.22E-11	3.12E-12	3.62E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	3.29E-07	8.37E-09	6.38E-12	6.16E-12	2.97E-09	1.67E-10	9.07E-10	-2.43E-08
Soil quality	SQP	Pt	4.28E+01	2.42E+00	1.68E-03	1.59E-03	1.61E+00	3.61E-02	4.29E+00	-9.09E-01

Table 246 – Environmental impacts per m^2 of installed K10 Plus 100 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.90E+01	7.77E-01	8.57E-04	8.37E-04	2.77E-01	9.68E-03	9.96E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	7.19E-07	8.69E-08	1.06E-10	1.04E-10	2.83E-08	1.08E-09	2.95E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	8.85E-02	3.42E-03	6.50E-06	6.42E-06	1.06E-03	3.17E-05	5.85E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.79E-02	6.26E-04	1.52E-06	1.50E-06	2.49E-04	7.82E-06	1.43E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	9.23E-03	1.84E-04	1.69E-07	1.65E-07	6.80E-05	1.99E-06	2.15E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.44E-04	2.16E-06	2.13E-10	1.32E-10	1.41E-06	7.40E-08	1.06E-07	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	3.89E+02	1.16E+01	1.18E-02	1.15E-02	3.92E+00	1.42E-01	2.45E+00	-2.71E+00

K17 25 mm

Table 247 – Environmental impacts per m^2 of installed K17 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	7.06E+00	5.72E-01	1.06E-03	5.86E-04	1.95E-01	9.82E-03	7.04E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	9.12E-02	6.90E-05	4.42E-08	-2.82E-08	1.58E-05	1.06E-05	6.29E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	5.69E-03	1.62E-05	6.48E-09	3.06E-09	1.76E-06	6.92E-08	6.83E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	7.16E+00	5.72E-01	5.86E-04	5.86E-04	1.95E-01	9.83E-03	7.04E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	3.88E-07	7.91E-08	9.10E-11	9.10E-11	2.48E-08	1.36E-09	2.57E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	4.53E-02	4.41E-03	9.94E-06	6.19E-06	1.50E-03	6.26E-05	5.56E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.27E-03	1.69E-05	4.40E-08	2.82E-08	7.79E-06	7.39E-07	5.34E-06	-3.94E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Eutrophication – marine	EP - M	kg N eq.	8.13E-03	8.50E-04	3.77E-06	2.66E-06	3.96E-04	1.37E-05	2.30E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	8.92E-02	9.42E-03	4.12E-05	2.91E-05	4.33E-03	1.54E-04	2.51E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	2.85E-02	2.42E-03	7.02E-06	7.02E-06	1.08E-03	3.82E-05	6.12E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	4.74E-05	1.61E-06	2.01E-09	9.13E-11	9.80E-07	7.40E-08	7.30E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.21E+02	6.83E+00	1.30E-02	8.20E-03	2.39E+00	1.31E-01	1.78E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.65E+02	4.55E-01	1.34E-02	8.48E-03	2.25E+00	3.53E-03	3.29E+00	-2.98E-02

Table 248 – Use of resources per m^2 of installed K17 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	5.89E+00	7.49E-02	1.10E-04	3.33E-05	3.42E-02	2.72E-03	1.40E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	5.89E+00	7.49E-02	1.10E-04	3.33E-05	3.42E-02	2.72E-03	1.40E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.29E+02	7.21E+00	1.37E-02	8.71E-03	2.52E+00	1.37E-01	1.89E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	9.36E-01	0.00E+00	-9.36E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.30E+02	7.21E+00	-9.23E-01	8.71E-03	2.52E+00	1.37E-01	1.89E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	3.46E-02	1.03E-03	1.37E-06	5.31E-07	4.19E-04	2.59E-05	9.92E-04	8.48E-05

Table 249 – Waste generated per m^2 of installed K17 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	2.88E-04	8.82E-06	1.14E-08	4.21E-09	3.70E-06	7.43E-05	6.96E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	6.08E-01	6.69E-02	2.23E-02	5.39E-06	2.10E-02	1.27E-03	9.57E+00	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	1.38E-04	1.26E-06	2.45E-09	2.42E-09	1.46E-08	2.03E-09	8.61E-07	-6.48E-06

Table 250 – Output flows generated per m² of installed K17 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 251 – Additional environmental impact per m² of installed K17 25 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	6.77E+00	5.62E-01	1.05E-03	5.79E-04	1.91E-01	9.65E-03	6.80E-02	-2.27E-01
Particulate matter	PM	disease incidence	4.10E-07	3.92E-08	1.61E-10	1.61E-10	1.13E-08	7.56E-10	1.05E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	5.12E-01	1.08E-03	1.67E-05	1.67E-05	1.04E-04	1.43E-05	6.26E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.50E+02	5.73E+00	9.03E-03	4.27E-03	1.44E+00	1.22E-01	6.64E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.49E-08	1.64E-10	2.38E-13	9.64E-14	6.39E-11	3.12E-12	2.50E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.09E-07	6.16E-09	9.35E-12	4.27E-12	2.05E-09	1.67E-10	6.27E-10	-2.43E-08
Soil quality	SQP	Pt	1.48E+01	1.81E+00	3.32E-03	1.10E-03	1.12E+00	3.61E-02	2.96E+00	-9.09E-01

Table 252 – Environmental impacts per m² of installed K17 25 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	6.90E+00	5.60E-01	1.05E-03	5.80E-04	1.92E-01	9.68E-03	6.88E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.45E-07	6.25E-08	1.10E-10	7.22E-11	1.96E-08	1.08E-09	2.04E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	3.21E-02	1.96E-03	6.34E-06	4.45E-06	7.33E-04	3.17E-05	4.04E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	6.97E-03	4.09E-04	1.49E-06	1.04E-06	1.73E-04	7.82E-06	9.89E-05	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	2.79E-03	1.22E-04	2.31E-07	1.14E-07	4.71E-05	1.99E-06	1.49E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	4.76E-05	1.61E-06	2.01E-09	9.17E-11	9.80E-07	7.40E-08	7.31E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.35E+02	8.42E+00	1.46E-02	7.96E-03	2.72E+00	1.42E-01	1.69E+00	-2.71E+00

K17 30 mm

Table 253 – Environmental impacts per m² of installed K17 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	6.93E+00	5.79E-01	7.91E-04	5.94E-04	1.98E-01	9.82E-03	7.13E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	9.10E-02	6.99E-05	1.25E-09	-2.86E-08	1.60E-05	1.06E-05	6.37E-07	7.17E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	5.83E-03	1.64E-05	4.51E-09	3.10E-09	1.78E-06	6.92E-08	6.92E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	7.02E+00	5.79E-01	5.94E-04	5.94E-04	1.98E-01	9.83E-03	7.13E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	4.04E-07	8.01E-08	9.21E-11	9.21E-11	2.51E-08	1.36E-09	2.60E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	4.48E-02	4.46E-03	7.81E-06	6.27E-06	1.52E-03	6.26E-05	5.63E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.34E-03	1.71E-05	3.51E-08	2.86E-08	7.89E-06	7.39E-07	5.41E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	7.67E-03	8.61E-04	3.15E-06	2.70E-06	4.01E-04	1.37E-05	2.33E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	8.42E-02	9.55E-03	3.45E-05	2.95E-05	4.39E-03	1.54E-04	2.55E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	2.79E-02	2.46E-03	7.11E-06	7.11E-06	1.09E-03	3.82E-05	6.20E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	5.07E-05	1.63E-06	8.83E-10	9.25E-11	9.92E-07	7.40E-08	7.39E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.24E+02	6.92E+00	1.03E-02	8.31E-03	2.42E+00	1.31E-01	1.80E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.65E+02	4.60E-01	1.06E-02	8.59E-03	2.28E+00	3.53E-03	3.33E+00	-2.98E-02

Table 254 – Use of resources per m^2 of installed K17 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	5.64E+00	7.58E-02	6.51E-05	3.37E-05	3.47E-02	2.72E-03	1.42E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	5.64E+00	7.58E-02	6.51E-05	3.37E-05	3.47E-02	2.72E-03	1.42E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.32E+02	7.31E+00	1.09E-02	8.82E-03	2.55E+00	1.37E-01	1.91E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.86E-01	0.00E+00	-3.86E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.32E+02	7.31E+00	-3.75E-01	8.82E-03	2.55E+00	1.37E-01	1.91E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	3.66E-02	1.04E-03	8.84E-07	5.38E-07	4.25E-04	2.59E-05	1.00E-03	8.48E-05

Table 255 – Waste generated per m² of installed K17 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	2.93E-04	8.94E-06	7.23E-09	4.26E-09	3.74E-06	7.43E-05	7.05E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	6.10E-01	6.78E-02	9.19E-03	5.46E-06	2.13E-02	1.27E-03	9.69E+00	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	1.43E-04	1.27E-06	2.46E-09	2.45E-09	1.48E-08	2.03E-09	8.72E-07	-6.48E-06

Table 256 – Output flows generated per m² of installed K17 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 257 – Additional environmental impact per m² of installed K17 30 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	6.63E+00	5.69E-01	7.80E-04	5.86E-04	1.94E-01	9.65E-03	6.89E-02	-2.27E-01
Particulate matter	PM	disease incidence	4.09E-07	3.97E-08	1.63E-10	1.63E-10	1.15E-08	7.56E-10	1.07E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	5.24E-01	1.10E-03	1.69E-05	1.69E-05	1.05E-04	1.43E-05	6.34E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.58E+02	5.80E+00	6.29E-03	4.33E-03	1.46E+00	1.22E-01	6.73E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.59E-08	1.66E-10	1.56E-13	9.77E-14	6.47E-11	3.12E-12	2.53E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.19E-07	6.24E-09	6.42E-12	4.33E-12	2.08E-09	1.67E-10	6.35E-10	-2.43E-08
Soil quality	SQP	Pt	1.51E+01	1.83E+00	2.03E-03	1.11E-03	1.13E+00	3.61E-02	3.00E+00	-9.09E-01

Table 258 – Environmental impacts per m² of installed K17 30 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	6.76E+00	5.68E-01	7.81E-04	5.88E-04	1.94E-01	9.68E-03	6.97E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	3.61E-07	6.33E-08	8.88E-11	7.31E-11	1.99E-08	1.08E-09	2.06E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	3.31E-02	1.98E-03	5.29E-06	4.51E-06	7.42E-04	3.17E-05	4.09E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	7.00E-03	4.15E-04	1.24E-06	1.05E-06	1.75E-04	7.82E-06	1.00E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	2.98E-03	1.24E-04	1.64E-07	1.15E-07	4.78E-05	1.99E-06	1.51E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	5.09E-05	1.63E-06	8.83E-10	9.29E-11	9.92E-07	7.40E-08	7.41E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.37E+02	8.53E+00	1.08E-02	8.06E-03	2.75E+00	1.42E-01	1.71E+00	-2.71E+00

K17 40 mm

Table 259 – Environmental impacts per m^2 of installed K17 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	8.51E+00	5.99E-01	1.18E-03	6.15E-04	2.05E-01	9.82E-03	7.38E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	9.31E-02	7.24E-05	5.53E-08	-2.96E-08	1.65E-05	1.06E-05	6.60E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	6.59E-03	1.70E-05	7.21E-09	3.21E-09	1.85E-06	6.92E-08	7.16E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	8.61E+00	5.99E-01	6.15E-04	6.15E-04	2.05E-01	9.83E-03	7.38E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	4.53E-07	8.29E-08	9.54E-11	9.54E-11	2.60E-08	1.36E-09	2.70E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	5.50E-02	4.62E-03	1.09E-05	6.49E-06	1.57E-03	6.26E-05	5.83E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.57E-03	1.77E-05	4.81E-08	2.96E-08	8.17E-06	7.39E-07	5.60E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	9.59E-03	8.91E-04	4.09E-06	2.79E-06	4.15E-04	1.37E-05	2.41E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.05E-01	9.88E-03	4.47E-05	3.06E-05	4.54E-03	1.54E-04	2.64E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	3.49E-02	2.54E-03	7.36E-06	7.36E-06	1.13E-03	3.82E-05	6.42E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	6.06E-05	1.69E-06	2.34E-09	9.57E-11	1.03E-06	7.40E-08	7.65E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.52E+02	7.16E+00	1.42E-02	8.60E-03	2.51E+00	1.31E-01	1.86E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.66E+02	4.77E-01	1.47E-02	8.89E-03	2.36E+00	3.53E-03	3.45E+00	-2.98E-02

Table 260 – Use of resources per m^2 of installed K17 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	6.75E+00	7.85E-02	1.24E-04	3.49E-05	3.59E-02	2.72E-03	1.47E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	6.75E+00	7.85E-02	1.24E-04	3.49E-05	3.59E-02	2.72E-03	1.47E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.62E+02	7.56E+00	1.50E-02	9.13E-03	2.64E+00	1.37E-01	1.98E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	1.10E+00	0.00E+00	-1.10E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Primary non renewable energy - total	PENRT	MJ	1.63E+02	7.56E+00	-1.08E+00	9.13E-03	2.64E+00	1.37E-01	1.98E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	4.47E-02	1.08E-03	1.54E-06	5.57E-07	4.39E-04	2.59E-05	1.04E-03	8.48E-05

Table 261 – Waste generated per m^2 of installed K17 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.08E-04	9.25E-06	1.29E-08	4.41E-09	3.87E-06	7.43E-05	7.30E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	7.06E-01	7.02E-02	2.61E-02	5.66E-06	2.21E-02	1.27E-03	1.00E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	1.60E-04	1.32E-06	2.57E-09	2.53E-09	1.53E-08	2.03E-09	9.03E-07	-6.48E-06

Table 262 – Output flows generated per m^2 of installed K17 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 263 – Additional environmental impact per m^2 of installed K17 40 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	8.14E+00	5.89E-01	1.16E-03	6.07E-04	2.00E-01	9.65E-03	7.13E-02	-2.27E-01
Particulate matter	PM	disease incidence	4.84E-07	4.11E-08	1.69E-10	1.69E-10	1.19E-08	7.56E-10	1.10E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	5.68E-01	1.14E-03	1.75E-05	1.75E-05	1.09E-04	1.43E-05	6.56E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.85E+02	6.00E+00	1.01E-02	4.48E-03	1.51E+00	1.22E-01	6.97E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	1.91E-08	1.72E-10	2.67E-13	1.01E-13	6.70E-11	3.12E-12	2.62E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.44E-07	6.45E-09	1.04E-11	4.48E-12	2.15E-09	1.67E-10	6.57E-10	-2.43E-08
Soil quality	SQP	Pt	1.73E+01	1.90E+00	3.76E-03	1.15E-03	1.17E+00	3.61E-02	3.11E+00	-9.09E-01

Table 264 – Environmental impacts per m^2 of installed K17 40 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	8.30E+00	5.88E-01	1.16E-03	6.08E-04	2.01E-01	9.68E-03	7.22E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	4.05E-07	6.55E-08	1.20E-10	7.56E-11	2.06E-08	1.08E-09	2.14E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	3.98E-02	2.05E-03	6.88E-06	4.66E-06	7.68E-04	3.17E-05	4.24E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	8.38E-03	4.29E-04	1.62E-06	1.09E-06	1.81E-04	7.82E-06	1.04E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	3.64E-03	1.28E-04	2.56E-07	1.20E-07	4.94E-05	1.99E-06	1.56E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	6.08E-05	1.69E-06	2.34E-09	9.62E-11	1.03E-06	7.40E-08	7.67E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.70E+02	8.83E+00	1.61E-02	8.34E-03	2.85E+00	1.42E-01	1.77E+00	-2.71E+00

K17 45 mm

Table 265 – Environmental impacts per m^2 of installed K17 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	8.45E+00	6.11E-01	7.84E-04	6.27E-04	2.09E-01	9.82E-03	7.53E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	9.28E-02	7.38E-05	-6.51E-09	-3.02E-08	1.69E-05	1.06E-05	6.73E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	6.87E-03	1.73E-05	4.39E-09	3.27E-09	1.88E-06	6.92E-08	7.31E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	8.55E+00	6.12E-01	6.27E-04	6.27E-04	2.09E-01	9.83E-03	7.53E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	4.79E-07	8.46E-08	9.73E-11	9.73E-11	2.65E-08	1.36E-09	2.75E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	5.44E-02	4.71E-03	7.85E-06	6.62E-06	1.60E-03	6.26E-05	5.95E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.69E-03	1.81E-05	3.53E-08	3.02E-08	8.33E-06	7.39E-07	5.71E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	9.05E-03	9.09E-04	3.21E-06	2.85E-06	4.23E-04	1.37E-05	2.46E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	9.90E-02	1.01E-02	3.51E-05	3.12E-05	4.63E-03	1.54E-04	2.69E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	3.46E-02	2.59E-03	7.51E-06	7.51E-06	1.15E-03	3.82E-05	6.55E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	6.63E-05	1.72E-06	7.25E-10	9.77E-11	1.05E-06	7.40E-08	7.81E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.59E+02	7.31E+00	1.03E-02	8.77E-03	2.56E+00	1.31E-01	1.90E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.66E+02	4.86E-01	1.07E-02	9.07E-03	2.41E+00	3.53E-03	3.52E+00	-2.98E-02

Table 266 – Use of resources per m^2 of installed K17 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	6.45E+00	8.01E-02	6.06E-05	3.56E-05	3.66E-02	2.72E-03	1.50E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	6.45E+00	8.01E-02	6.06E-05	3.56E-05	3.66E-02	2.72E-03	1.50E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.70E+02	7.71E+00	1.10E-02	9.31E-03	2.69E+00	1.37E-01	2.02E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.06E-01	0.00E+00	-3.06E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.70E+02	7.71E+00	-2.95E-01	9.31E-03	2.69E+00	1.37E-01	2.02E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	4.83E-02	1.10E-03	8.43E-07	5.68E-07	4.48E-04	2.59E-05	1.06E-03	8.48E-05

Table 267 – Waste generated per m^2 of installed K17 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.16E-04	9.44E-06	6.86E-09	4.50E-09	3.95E-06	7.43E-05	7.45E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	7.18E-01	7.16E-02	7.29E-03	5.77E-06	2.25E-02	1.27E-03	1.02E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	1.69E-04	1.34E-06	2.59E-09	2.59E-09	1.56E-08	2.03E-09	9.22E-07	-6.48E-06

Table 268 – Output flows generated per m^2 of installed K17 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 269 – Additional environmental impact per m² of installed K17 45 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	8.06E+00	6.01E-01	7.73E-04	6.19E-04	2.04E-01	9.65E-03	7.28E-02	-2.27E-01
Particulate matter	PM	disease incidence	4.86E-07	4.19E-08	1.72E-10	1.72E-10	1.21E-08	7.56E-10	1.13E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	5.89E-01	1.16E-03	1.79E-05	1.79E-05	1.11E-04	1.43E-05	6.70E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	1.99E+02	6.13E+00	6.12E-03	4.57E-03	1.54E+00	1.22E-01	7.11E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.12E-08	1.76E-10	1.50E-13	1.03E-13	6.84E-11	3.12E-12	2.68E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.55E-07	6.59E-09	6.23E-12	4.57E-12	2.20E-09	1.67E-10	6.71E-10	-2.43E-08
Soil quality	SQP	Pt	1.81E+01	1.94E+00	1.90E-03	1.18E-03	1.20E+00	3.61E-02	3.17E+00	-9.09E-01

Table 270 – Environmental impacts per m² of installed K17 45 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	8.23E+00	5.99E-01	7.74E-04	6.21E-04	2.05E-01	9.68E-03	7.37E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	4.29E-07	6.69E-08	8.96E-11	7.72E-11	2.10E-08	1.08E-09	2.18E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	4.13E-02	2.09E-03	5.38E-06	4.76E-06	7.84E-04	3.17E-05	4.32E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	8.57E-03	4.38E-04	1.26E-06	1.11E-06	1.85E-04	7.82E-06	1.06E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	3.99E-03	1.31E-04	1.60E-07	1.22E-07	5.04E-05	1.99E-06	1.59E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	6.65E-05	1.72E-06	7.25E-10	9.81E-11	1.05E-06	7.40E-08	7.83E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	1.76E+02	9.01E+00	1.07E-02	8.51E-03	2.91E+00	1.42E-01	1.81E+00	-2.71E+00

K17 50 mm

Table 271 – Environmental impacts per m² of installed K17 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	9.69E+00	6.26E-01	1.14E-03	6.42E-04	2.14E-01	9.82E-03	7.71E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	9.44E-02	7.56E-05	4.42E-08	-3.09E-08	1.73E-05	1.06E-05	6.89E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	7.40E-03	1.77E-05	6.89E-09	3.35E-09	1.93E-06	6.92E-08	7.48E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	9.79E+00	6.26E-01	6.42E-04	6.42E-04	2.14E-01	9.83E-03	7.71E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	5.08E-07	8.66E-08	9.96E-11	9.96E-11	2.72E-08	1.36E-09	2.82E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	6.19E-02	4.83E-03	1.07E-05	6.77E-06	1.64E-03	6.26E-05	6.09E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	1.85E-03	1.85E-05	4.72E-08	3.09E-08	8.53E-06	7.39E-07	5.85E-06	-3.94E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Eutrophication – marine	EP - M	kg N eq.	1.06E-02	9.31E-04	4.06E-06	2.91E-06	4.33E-04	1.37E-05	2.52E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.16E-01	1.03E-02	4.44E-05	3.19E-05	4.74E-03	1.54E-04	2.76E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	4.01E-02	2.65E-03	7.68E-06	7.68E-06	1.18E-03	3.82E-05	6.71E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	7.27E-05	1.76E-06	2.09E-09	1.00E-10	1.07E-06	7.40E-08	7.99E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	1.80E+02	7.48E+00	1.39E-02	8.98E-03	2.62E+00	1.31E-01	1.95E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.67E+02	4.98E-01	1.44E-02	9.28E-03	2.47E+00	3.53E-03	3.60E+00	-2.98E-02

Table 272 – Use of resources per m^2 of installed K17 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	7.34E+00	8.20E-02	1.16E-04	3.65E-05	3.75E-02	2.72E-03	1.54E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	7.34E+00	8.20E-02	1.16E-04	3.65E-05	3.75E-02	2.72E-03	1.54E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	1.92E+02	7.90E+00	1.47E-02	9.53E-03	2.76E+00	1.37E-01	2.07E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	9.71E-01	0.00E+00	-9.71E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	1.93E+02	7.90E+00	-9.56E-01	9.53E-03	2.76E+00	1.37E-01	2.07E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	5.41E-02	1.13E-03	1.45E-06	5.81E-07	4.59E-04	2.59E-05	1.09E-03	8.48E-05

Table 273 – Waste generated per m^2 of installed K17 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.24E-04	9.66E-06	1.21E-08	4.61E-09	4.05E-06	7.43E-05	7.63E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	7.89E-01	7.33E-02	2.31E-02	5.91E-06	2.30E-02	1.27E-03	1.05E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	1.80E-04	1.37E-06	2.68E-09	2.65E-09	1.60E-08	2.03E-09	9.43E-07	-6.48E-06

Table 274 – Output flows generated per m² of installed K17 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 275 – Additional environmental impact per m² of installed K17 50 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	9.25E+00	6.15E-01	1.12E-03	6.34E-04	2.09E-01	9.65E-03	7.45E-02	-2.27E-01
Particulate matter	PM	disease incidence	5.41E-07	4.29E-08	1.76E-10	1.76E-10	1.24E-08	7.56E-10	1.15E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	6.18E-01	1.19E-03	1.83E-05	1.83E-05	1.14E-04	1.43E-05	6.86E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.18E+02	6.27E+00	9.61E-03	4.68E-03	1.58E+00	1.22E-01	7.28E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.35E-08	1.80E-10	2.53E-13	1.06E-13	7.00E-11	3.12E-12	2.74E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.67E-07	6.74E-09	9.94E-12	4.67E-12	2.25E-09	1.67E-10	6.87E-10	-2.43E-08
Soil quality	SQP	Pt	1.96E+01	1.98E+00	3.51E-03	1.20E-03	1.22E+00	3.61E-02	3.25E+00	-9.09E-01

Table 276– Environmental impacts per m² of installed K17 50 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	9.44E+00	6.14E-01	1.12E-03	6.35E-04	2.10E-01	9.68E-03	7.54E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	4.56E-07	6.85E-08	1.18E-10	7.90E-11	2.15E-08	1.08E-09	2.23E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	4.59E-02	2.14E-03	6.83E-06	4.87E-06	8.02E-04	3.17E-05	4.43E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	9.60E-03	4.48E-04	1.60E-06	1.14E-06	1.89E-04	7.82E-06	1.08E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	4.45E-03	1.34E-04	2.46E-07	1.25E-07	5.16E-05	1.99E-06	1.63E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	7.29E-05	1.76E-06	2.09E-09	1.00E-10	1.07E-06	7.40E-08	8.01E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.01E+02	9.22E+00	1.56E-02	8.71E-03	2.98E+00	1.42E-01	1.85E+00	-2.71E+00

K17 60 mm

Table 277 – Environmental impacts per m² of installed K17 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.03E+01	6.49E-01	9.01E-04	6.65E-04	2.21E-01	9.82E-03	7.99E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	9.52E-02	7.83E-05	3.66E-09	-3.20E-08	1.79E-05	1.06E-05	7.14E-07	7.17E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	8.06E-03	1.83E-05	5.15E-09	3.47E-09	2.00E-06	6.92E-08	7.75E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.05E+01	6.49E-01	6.65E-04	6.65E-04	2.21E-01	9.83E-03	7.99E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	5.63E-07	8.97E-08	1.03E-10	1.03E-10	2.82E-08	1.36E-09	2.92E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	6.67E-02	5.00E-03	8.87E-06	7.02E-06	1.70E-03	6.26E-05	6.32E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.09E-03	1.91E-05	3.98E-08	3.20E-08	8.84E-06	7.39E-07	6.06E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.09E-02	9.64E-04	3.56E-06	3.02E-06	4.49E-04	1.37E-05	2.61E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.19E-01	1.07E-02	3.90E-05	3.31E-05	4.91E-03	1.54E-04	2.86E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	4.30E-02	2.75E-03	7.96E-06	7.96E-06	1.22E-03	3.82E-05	6.95E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	8.38E-05	1.82E-06	1.05E-09	1.04E-10	1.11E-06	7.40E-08	8.28E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.00E+02	7.75E+00	1.16E-02	9.30E-03	2.71E+00	1.31E-01	2.02E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.68E+02	5.16E-01	1.20E-02	9.62E-03	2.56E+00	3.53E-03	3.73E+00	-2.98E-02

Table 278 – Use of resources per m^2 of installed K17 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	7.55E+00	8.49E-02	7.53E-05	3.78E-05	3.88E-02	2.72E-03	1.59E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	7.55E+00	8.49E-02	7.53E-05	3.78E-05	3.88E-02	2.72E-03	1.59E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.14E+02	8.18E+00	1.23E-02	9.88E-03	2.86E+00	1.37E-01	2.14E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	4.61E-01	0.00E+00	-4.61E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	2.15E+02	8.18E+00	-4.49E-01	9.88E-03	2.86E+00	1.37E-01	2.14E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	6.18E-02	1.17E-03	1.02E-06	6.02E-07	4.76E-04	2.59E-05	1.13E-03	8.48E-05

Table 279 – Waste generated per m² of installed K17 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.41E-04	1.00E-05	8.32E-09	4.77E-09	4.19E-06	7.43E-05	7.91E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	8.47E-01	7.59E-02	1.10E-02	6.12E-06	2.39E-02	1.27E-03	1.09E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	1.98E-04	1.42E-06	2.76E-09	2.74E-09	1.66E-08	2.03E-09	9.78E-07	-6.48E-06

Table 280 – Output flows generated per m² of installed K17 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 281 – Additional environmental impact per m² of installed K17 60 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	9.86E+00	6.38E-01	8.88E-04	6.57E-04	2.17E-01	9.65E-03	7.72E-02	-2.27E-01
Particulate matter	PM	disease incidence	5.81E-07	4.45E-08	1.83E-10	1.83E-10	1.28E-08	7.56E-10	1.20E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	6.62E-01	1.23E-03	1.90E-05	1.90E-05	1.18E-04	1.43E-05	7.11E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.46E+02	6.50E+00	7.19E-03	4.85E-03	1.64E+00	1.22E-01	7.55E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	2.71E-08	1.86E-10	1.79E-13	1.09E-13	7.25E-11	3.12E-12	2.84E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	1.97E-07	6.98E-09	7.35E-12	4.84E-12	2.33E-09	1.67E-10	7.12E-10	-2.43E-08
Soil quality	SQP	Pt	2.14E+01	2.05E+00	2.34E-03	1.25E-03	1.27E+00	3.61E-02	3.37E+00	-9.09E-01

Table 282 – Environmental impacts per m² of installed K17 60 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.01E+01	6.36E-01	8.90E-04	6.58E-04	2.18E-01	9.68E-03	7.82E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	5.06E-07	7.09E-08	1.01E-10	8.19E-11	2.23E-08	1.08E-09	2.31E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	5.12E-02	2.22E-03	5.98E-06	5.05E-06	8.31E-04	3.17E-05	4.59E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.04E-02	4.64E-04	1.40E-06	1.18E-06	1.96E-04	7.82E-06	1.12E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	5.12E-03	1.38E-04	1.87E-07	1.29E-07	5.35E-05	1.99E-06	1.69E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	8.40E-05	1.82E-06	1.05E-09	1.04E-10	1.11E-06	7.40E-08	8.30E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.22E+02	9.55E+00	1.23E-02	9.03E-03	3.08E+00	1.42E-01	1.92E+00	-2.71E+00

K17 70 mm

Table 283 – Environmental impacts per m^2 of installed K17 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.14E+01	6.75E-01	7.96E-04	6.92E-04	2.30E-01	9.82E-03	8.31E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	9.64E-02	8.15E-05	-1.76E-08	-3.33E-08	1.86E-05	1.06E-05	7.43E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	8.85E-03	1.91E-05	4.35E-09	3.61E-09	2.08E-06	6.92E-08	8.07E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.15E+01	6.75E-01	6.92E-04	6.92E-04	2.30E-01	9.83E-03	8.31E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	6.23E-07	9.33E-08	1.07E-10	1.07E-10	2.93E-08	1.36E-09	3.04E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	7.33E-02	5.20E-03	8.12E-06	7.30E-06	1.77E-03	6.26E-05	6.57E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.36E-03	1.99E-05	3.67E-08	3.33E-08	9.19E-06	7.39E-07	6.30E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.18E-02	1.00E-03	3.38E-06	3.14E-06	4.67E-04	1.37E-05	2.71E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.28E-01	1.11E-02	3.70E-05	3.44E-05	5.11E-03	1.54E-04	2.97E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	4.75E-02	2.86E-03	8.28E-06	8.28E-06	1.27E-03	3.82E-05	7.23E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	9.61E-05	1.90E-06	5.24E-10	1.08E-10	1.16E-06	7.40E-08	8.62E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.26E+02	8.06E+00	1.07E-02	9.67E-03	2.82E+00	1.31E-01	2.10E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.69E+02	5.36E-01	1.11E-02	1.00E-02	2.66E+00	3.53E-03	3.88E+00	-2.98E-02

Table 284 – Use of resources per m^2 of installed K17 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	8.04E+00	8.83E-02	5.58E-05	3.93E-05	4.04E-02	2.72E-03	1.66E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	8.04E+00	8.83E-02	5.58E-05	3.93E-05	4.04E-02	2.72E-03	1.66E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.43E+02	8.51E+00	1.14E-02	1.03E-02	2.97E+00	1.37E-01	2.23E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	2.03E-01	0.00E+00	-2.03E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Primary non renewable energy - total	PENRT	MJ	2.43E+02	8.51E+00	-1.92E-01	1.03E-02	2.97E+00	1.37E-01	2.23E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	7.09E-02	1.21E-03	8.09E-07	6.27E-07	4.95E-04	2.59E-05	1.17E-03	8.48E-05

Table 285 – Waste generated per m^2 of installed K17 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.59E-04	1.04E-05	6.53E-09	4.97E-09	4.36E-06	7.43E-05	8.22E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	9.24E-01	7.90E-02	4.85E-03	6.36E-06	2.48E-02	1.27E-03	1.13E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	2.18E-04	1.48E-06	2.86E-09	2.85E-09	1.72E-08	2.03E-09	1.02E-06	-6.48E-06

Table 286 – Output flows generated per m^2 of installed K17 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 287 – Additional environmental impact per m^2 of installed K17 70 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.08E+01	6.63E-01	7.85E-04	6.83E-04	2.26E-01	9.65E-03	8.03E-02	-2.27E-01
Particulate matter	PM	disease incidence	6.35E-07	4.63E-08	1.90E-10	1.90E-10	1.34E-08	7.56E-10	1.24E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	7.12E-01	1.28E-03	1.97E-05	1.97E-05	1.23E-04	1.43E-05	7.39E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	2.78E+02	6.76E+00	6.07E-03	5.04E-03	1.70E+00	1.22E-01	7.85E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	3.12E-08	1.94E-10	1.45E-13	1.14E-13	7.54E-11	3.12E-12	2.95E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.26E-07	7.26E-09	6.14E-12	5.04E-12	2.42E-09	1.67E-10	7.40E-10	-2.43E-08
Soil quality	SQP	Pt	2.37E+01	2.14E+00	1.78E-03	1.30E-03	1.32E+00	3.61E-02	3.50E+00	-9.09E-01

Table 288 – Environmental impacts per m^2 of installed K17 70 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.11E+01	6.61E-01	7.87E-04	6.85E-04	2.26E-01	9.68E-03	8.13E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	5.60E-07	7.38E-08	9.34E-11	8.51E-11	2.32E-08	1.08E-09	2.41E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	5.74E-02	2.31E-03	5.66E-06	5.25E-06	8.65E-04	3.17E-05	4.77E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.16E-02	4.83E-04	1.32E-06	1.22E-06	2.04E-04	7.82E-06	1.17E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	5.91E-03	1.44E-04	1.60E-07	1.34E-07	5.56E-05	1.99E-06	1.76E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	9.63E-05	1.90E-06	5.25E-10	1.08E-10	1.16E-06	7.40E-08	8.64E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.51E+02	9.94E+00	1.08E-02	9.39E-03	3.21E+00	1.42E-01	2.00E+00	-2.71E+00

K17 80 mm

Table 289 – Environmental impacts per m^2 of installed K17 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.33E+01	7.12E-01	8.51E-04	7.31E-04	2.43E-01	9.82E-03	8.78E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	9.86E-02	8.60E-05	-1.70E-08	-3.51E-08	1.96E-05	1.06E-05	7.85E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	1.01E-02	2.01E-05	4.67E-09	3.81E-09	2.19E-06	6.92E-08	8.52E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.34E+01	7.12E-01	7.31E-04	7.31E-04	2.43E-01	9.83E-03	8.78E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	7.05E-07	9.85E-08	1.13E-10	1.13E-10	3.09E-08	1.36E-09	3.21E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	8.45E-02	5.49E-03	8.65E-06	7.71E-06	1.87E-03	6.26E-05	6.94E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.79E-03	2.10E-05	3.91E-08	3.52E-08	9.71E-06	7.39E-07	6.66E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.36E-02	1.06E-03	3.59E-06	3.32E-06	4.93E-04	1.37E-05	2.86E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.47E-01	1.17E-02	3.93E-05	3.63E-05	5.39E-03	1.54E-04	3.14E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	5.59E-02	3.02E-03	8.74E-06	8.74E-06	1.34E-03	3.82E-05	7.64E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.14E-04	2.00E-06	5.95E-10	1.14E-10	1.22E-06	7.40E-08	9.10E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.69E+02	8.51E+00	1.14E-02	1.02E-02	2.98E+00	1.31E-01	2.22E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.71E+02	5.66E-01	1.18E-02	1.06E-02	2.81E+00	3.53E-03	4.10E+00	-2.98E-02

Table 290 – Use of resources per m^2 of installed K17 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	9.09E+00	9.32E-02	6.06E-05	4.15E-05	4.26E-02	2.72E-03	1.75E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	9.09E+00	9.32E-02	6.06E-05	4.15E-05	4.26E-02	2.72E-03	1.75E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	2.89E+02	8.98E+00	1.21E-02	1.08E-02	3.14E+00	1.37E-01	2.35E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	2.35E-01	0.00E+00	-2.35E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	2.89E+02	8.98E+00	-2.23E-01	1.08E-02	3.14E+00	1.37E-01	2.35E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	8.47E-02	1.28E-03	8.72E-07	6.61E-07	5.22E-04	2.59E-05	1.24E-03	8.48E-05

Table 291 – Waste generated per m^2 of installed K17 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.84E-04	1.10E-05	7.05E-09	5.24E-09	4.60E-06	7.43E-05	8.69E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	1.06E+00	8.34E-02	5.60E-03	6.72E-06	2.62E-02	1.27E-03	1.19E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	2.48E-04	1.56E-06	3.02E-09	3.01E-09	1.82E-08	2.03E-09	1.07E-06	-6.48E-06

Table 292 – Output flows generated per m^2 of installed K17 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 293 – Additional environmental impact per m² of installed K17 80 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.26E+01	7.00E-01	8.39E-04	7.21E-04	2.38E-01	9.65E-03	8.48E-02	-2.27E-01
Particulate matter	PM	disease incidence	7.25E-07	4.88E-08	2.00E-10	2.00E-10	1.41E-08	7.56E-10	1.31E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	7.88E-01	1.35E-03	2.08E-05	2.08E-05	1.29E-04	1.43E-05	7.81E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	3.28E+02	7.13E+00	6.51E-03	5.32E-03	1.80E+00	1.22E-01	8.29E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	3.78E-08	2.05E-10	1.56E-13	1.20E-13	7.96E-11	3.12E-12	3.12E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.61E-07	7.67E-09	6.59E-12	5.32E-12	2.56E-09	1.67E-10	7.82E-10	-2.43E-08
Soil quality	SQP	Pt	2.72E+01	2.25E+00	1.93E-03	1.37E-03	1.39E+00	3.61E-02	3.70E+00	-9.09E-01

Table 294 – Environmental impacts per m² of installed K17 80 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.29E+01	6.98E-01	8.41E-04	7.23E-04	2.39E-01	9.68E-03	8.59E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	6.36E-07	7.79E-08	9.94E-11	8.99E-11	2.45E-08	1.08E-09	2.54E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	6.66E-02	2.44E-03	6.02E-06	5.54E-06	9.13E-04	3.17E-05	5.04E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.35E-02	5.10E-04	1.41E-06	1.29E-06	2.15E-04	7.82E-06	1.23E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	7.11E-03	1.52E-04	1.71E-07	1.42E-07	5.87E-05	1.99E-06	1.85E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.14E-04	2.00E-06	5.96E-10	1.14E-10	1.22E-06	7.40E-08	9.12E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	2.99E+02	1.05E+01	1.16E-02	9.91E-03	3.39E+00	1.42E-01	2.11E+00	-2.71E+00

K17 90 mm

Table 295 – Environmental impacts per m² of installed K17 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.41E+01	7.32E-01	8.12E-04	7.51E-04	2.50E-01	9.82E-03	9.03E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	9.97E-02	8.84E-05	-2.69E-08	-3.61E-08	2.02E-05	1.06E-05	8.07E-07	7.17E-04
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	1.07E-02	2.07E-05	4.35E-09	3.92E-09	2.26E-06	6.92E-08	8.76E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.43E+01	7.32E-01	7.51E-04	7.51E-04	2.50E-01	9.83E-03	9.03E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	7.51E-07	1.01E-07	1.17E-10	1.17E-10	3.18E-08	1.36E-09	3.30E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	9.01E-02	5.64E-03	8.40E-06	7.93E-06	1.92E-03	6.26E-05	7.14E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	2.99E-03	2.16E-05	3.82E-08	3.61E-08	9.98E-06	7.39E-07	6.85E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.43E-02	1.09E-03	3.55E-06	3.41E-06	5.07E-04	1.37E-05	2.95E-04	-5.10E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Eutrophication – terrestrial	EP - T	mol N eq.	1.55E-01	1.21E-02	3.89E-05	3.73E-05	5.55E-03	1.54E-04	3.23E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	5.97E-02	3.11E-03	8.99E-06	8.99E-06	1.38E-03	3.82E-05	7.85E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.23E-04	2.06E-06	3.62E-10	1.17E-10	1.25E-06	7.40E-08	9.36E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	2.90E+02	8.75E+00	1.11E-02	1.05E-02	3.06E+00	1.31E-01	2.28E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.71E+02	5.82E-01	1.15E-02	1.09E-02	2.89E+00	3.53E-03	4.22E+00	-2.98E-02

Table 296 – Use of resources per m^2 of installed K17 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	9.52E+00	9.59E-02	5.24E-05	4.26E-05	4.38E-02	2.72E-03	1.80E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	9.52E+00	9.59E-02	5.24E-05	4.26E-05	4.38E-02	2.72E-03	1.80E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	3.10E+02	9.24E+00	1.18E-02	1.12E-02	3.23E+00	1.37E-01	2.42E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	1.19E-01	0.00E+00	-1.19E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	3.11E+02	9.24E+00	-1.08E-01	1.12E-02	3.23E+00	1.37E-01	2.42E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	9.17E-02	1.32E-03	7.87E-07	6.80E-07	5.37E-04	2.59E-05	1.27E-03	8.48E-05

Table 297 – Waste generated per m^2 of installed K17 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	3.97E-04	1.13E-05	6.31E-09	5.39E-09	4.73E-06	7.43E-05	8.93E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	1.12E+00	8.57E-02	2.85E-03	6.91E-06	2.69E-02	1.27E-03	1.23E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	2.63E-04	1.61E-06	3.10E-09	3.10E-09	1.87E-08	2.03E-09	1.11E-06	-6.48E-06

Table 298 – Output flows generated per m² of installed K17 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 299 – Additional environmental impact per m² of installed K17 90 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.34E+01	7.20E-01	8.01E-04	7.42E-04	2.45E-01	9.65E-03	8.73E-02	-2.27E-01
Particulate matter	PM	disease incidence	7.70E-07	5.02E-08	2.06E-10	2.06E-10	1.45E-08	7.56E-10	1.35E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	8.26E-01	1.39E-03	2.14E-05	2.14E-05	1.33E-04	1.43E-05	8.03E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	3.52E+02	7.33E+00	6.08E-03	5.47E-03	1.85E+00	1.22E-01	8.53E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	4.08E-08	2.10E-10	1.42E-13	1.24E-13	8.18E-11	3.12E-12	3.21E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	2.85E-07	7.89E-09	6.12E-12	5.47E-12	2.63E-09	1.67E-10	8.04E-10	-2.43E-08
Soil quality	SQP	Pt	2.89E+01	2.32E+00	1.69E-03	1.41E-03	1.43E+00	3.61E-02	3.80E+00	-9.09E-01

Table 300 – Environmental impacts per m² of installed K17 90 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.37E+01	7.18E-01	8.03E-04	7.43E-04	2.46E-01	9.68E-03	8.83E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	6.77E-07	8.01E-08	9.73E-11	9.24E-11	2.51E-08	1.08E-09	2.61E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	7.16E-02	2.51E-03	5.94E-06	5.70E-06	9.39E-04	3.17E-05	5.18E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.44E-02	5.24E-04	1.39E-06	1.33E-06	2.21E-04	7.82E-06	1.27E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	7.70E-03	1.56E-04	1.61E-07	1.46E-07	6.04E-05	1.99E-06	1.91E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.24E-04	2.06E-06	3.62E-10	1.17E-10	1.25E-06	7.40E-08	9.38E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	3.21E+02	1.08E+01	1.10E-02	1.02E-02	3.48E+00	1.42E-01	2.17E+00	-2.71E+00

K17 100 mm

Table 301 – Environmental impacts per m² of installed K17 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - fossil	GWP - Fossil	kg CO_2 eq.	1.61E+01	7.72E-01	8.12E-04	7.92E-04	2.64E-01	9.82E-03	9.52E-02	-2.32E-01
Global warming potential - biogenic	GWP - Biogenic	kg CO_2 eq.	1.02E-01	9.32E-05	-3.50E-08	-3.81E-08	2.13E-05	1.06E-05	8.51E-07	7.17E-04

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential - land use/ land transformation	GWP - Luluc	kg CO_2 eq.	1.20E-02	2.18E-05	4.27E-09	4.13E-09	2.38E-06	6.92E-08	9.24E-07	-2.27E-03
Global warming potential - total	GWP - Total	kg CO_2 eq.	1.62E+01	7.72E-01	7.92E-04	7.92E-04	2.64E-01	9.83E-03	9.52E-02	-2.33E-01
Ozone depletion potential	ODP	kg CFC 11 eq.	8.40E-07	1.07E-07	1.23E-10	1.23E-10	3.35E-08	1.36E-09	3.48E-08	-1.41E-08
Acidification potential	AP	mol H^+ eq.	1.01E-01	5.95E-03	8.51E-06	8.35E-06	2.02E-03	6.26E-05	7.53E-04	-3.63E-03
Eutrophication – freshwater	EP - F	kg P eq.	3.45E-03	2.28E-05	3.88E-08	3.81E-08	1.05E-05	7.39E-07	7.22E-06	-3.94E-04
Eutrophication – marine	EP - M	kg N eq.	1.61E-02	1.15E-03	3.64E-06	3.59E-06	5.34E-04	1.37E-05	3.11E-04	-5.10E-04
Eutrophication – terrestrial	EP - T	mol N eq.	1.74E-01	1.27E-02	3.99E-05	3.94E-05	5.85E-03	1.54E-04	3.40E-03	-6.09E-03
Photochemical ozone creation potential	POCP	kg NMVOC eq.	6.82E-02	3.27E-03	9.48E-06	9.48E-06	1.46E-03	3.82E-05	8.28E-04	-1.43E-03
Abiotic depletion potential - minerals and metals	ADP	kg Sb eq.	1.43E-04	2.17E-06	2.04E-10	1.23E-10	1.32E-06	7.40E-08	9.87E-08	-1.83E-04
Abiotic depletion potential - fossil fuels	ADPF	MJ	3.34E+02	9.22E+00	1.13E-02	1.11E-02	3.23E+00	1.31E-01	2.40E+00	-2.23E+00
Water Depletion Potential	WDP	m^3	1.73E+02	6.14E-01	1.17E-02	1.14E-02	3.04E+00	3.53E-03	4.45E+00	-2.98E-02

Table 302 – Use of resources per m^2 of installed K17 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ	1.06E+01	1.01E-01	4.82E-05	4.50E-05	4.62E-02	2.72E-03	1.90E-02	-8.91E-01
Use of renewable primary energy resources used as raw materials	PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary renewable energy - total	PERT	MJ	1.06E+01	1.01E-01	4.82E-05	4.50E-05	4.62E-02	2.72E-03	1.90E-02	-8.91E-01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ	3.58E+02	9.74E+00	1.20E-02	1.18E-02	3.40E+00	1.37E-01	2.55E+00	-2.37E+00
Use of non- renewable primary energy resources used as raw materials	PENRM	MJ	3.96E-02	0.00E+00	-3.96E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Primary non renewable energy - total	PENRT	MJ	3.58E+02	9.74E+00	-2.76E-02	1.18E-02	3.40E+00	1.37E-01	2.55E+00	-2.37E+00
Use of secondary material	SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	FW	m^3	1.06E-01	1.39E-03	7.52E-07	7.17E-07	5.66E-04	2.59E-05	1.34E-03	8.48E-05

Table 303 – Waste generated per m² of installed K17 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	HWD	kg	4.24E-04	1.19E-05	5.99E-09	5.68E-09	4.99E-06	7.43E-05	9.42E-07	-4.00E-04
Non-hazardous waste disposed	NHWD	kg	1.25E+00	9.04E-02	9.49E-04	7.28E-06	2.84E-02	1.27E-03	1.29E+01	-5.56E-02
Radioactive waste disposed/stored	RWD	kg	2.95E-04	1.69E-06	3.26E-09	3.26E-09	1.97E-08	2.03E-09	1.17E-06	-6.48E-06

Table 304 – Output flows generated per m² of installed K17 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for reuse	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.80E-02	0.00E+00	0.00E+00
Materials for energy recovery	MFRE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	EE - e	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - thermal	EE - t	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 305 – Additional environmental impact per m² of installed K17 100 mm (results are in accordance with EN15804+A2:2019)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential, excluding biogenic uptake, emissions and storage	GWP-GHG	kg CO2 eq	1.53E+01	7.59E-01	8.02E-04	7.82E-04	2.58E-01	9.65E-03	9.20E-02	-2.27E-01
Particulate matter	PM	disease incidence	8.63E-07	5.29E-08	2.17E-10	2.17E-10	1.53E-08	7.56E-10	1.43E-08	2.40E-08
Ionising radiation - human health	IRP	kBq U-235 eq	9.07E-01	1.46E-03	2.26E-05	2.26E-05	1.40E-04	1.43E-05	8.47E-03	-1.16E-02
Ecotoxicity - freshwater	ETP - fw	CTUe	4.05E+02	7.73E+00	5.97E-03	5.77E-03	1.95E+00	1.22E-01	8.99E-01	-4.33E+01
Human toxicity potential - cancer effects	HTP - c	CTUh	4.78E-08	2.22E-10	1.36E-13	1.30E-13	8.63E-11	3.12E-12	3.38E-11	-3.76E-10
Human toxicity potential - non cancer effects	HTP - nc	CTUh	3.23E-07	8.31E-09	5.98E-12	5.77E-12	2.77E-09	1.67E-10	8.48E-10	-2.43E-08
Soil quality	SQP	Pt	3.26E+01	2.44E+00	1.58E-03	1.48E-03	1.51E+00	3.61E-02	4.01E+00	-9.09E-01

Table 306 – Environmental impacts per m² of installed K17 100 mm (results are in accordance with EN15804+A1:2013)

Indicator	Abbreviation	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP100)	GWP	kg CO2 eq	1.56E+01	7.57E-01	8.03E-04	7.83E-04	2.59E-01	9.68E-03	9.31E-02	-2.28E-01
Ozone layer depletion	ODP	kg CFC-11 eq	7.59E-07	8.44E-08	9.90E-11	9.74E-11	2.65E-08	1.08E-09	2.76E-08	-1.11E-08
Acidification potential	AP	kg SO2 eq	8.13E-02	2.64E-03	6.09E-06	6.01E-06	9.90E-04	3.17E-05	5.47E-04	-3.03E-03
Eutrophication potential	EP	kg PO_4^{3-} eq	1.64E-02	5.53E-04	1.42E-06	1.40E-06	2.33E-04	7.82E-06	1.34E-04	-1.39E-03
Photochemical ozone creation potential	POCP	kg C2H4 eq	8.98E-03	1.65E-04	1.59E-07	1.54E-07	6.36E-05	1.99E-06	2.01E-05	-1.39E-04
Abiotic depletion potential for non-fossil resources	ADPE	kg Sb eq	1.43E-04	2.17E-06	2.05E-10	1.24E-10	1.32E-06	7.40E-08	9.90E-08	-1.83E-04
Abiotic depletion potential for fossil resources	ADPF	MJ	3.70E+02	1.14E+01	1.10E-02	1.07E-02	3.67E+00	1.42E-01	2.29E+00	-2.71E+00

Additional information

See sections 5.4, 7.3 and 7.4 in EN 15804

An EPD may include additional environmental information not derived from the LCA-based calculations. In general, this part of the EPD describing additional environmental information may include various issues e.g. on specific information about the use and end-of-life, which has a special value covering e.g.:

- *instruction for a proper use of the product, e.g. to minimise the energy or water consumption or to improve the durability of the product;*
- *instructions for a proper maintenance and service of the product;*
- *information on key parts of the product determining its durability;*
- *information on recycling including e.g. suitable procedures for recycling the entire product or selected parts and the potential environmental benefits gained;*
- *information on a suitable method of reuse of the product (or parts of the products) and procedures for disposal as waste at the end of its life cycle, and*
- *information regarding disposal of the product or inherent materials, and any other information considered necessary to minimise the product's end-of-life impacts.*

Additional information can also include information on carbon offset, carbon storage and delayed emissions, or on release of dangerous substances to indoor air, soil and water during the use stage.

Additional environmental information can also include a more detailed description of an organisation's overall environmental work such as:

- *the existence of a quality or environmental management system or any type of organised environmental activity;*
- *any activity related to supply chain management, social responsibility, etc., and*
- *information on where interested parties may find more details about the organisation's environmental work.*

It is recommended to add information enabling the possibility to make comparisons with sector benchmarks or, if not available, with benchmarks of common products and services preferably based on the concept of functional unit or declared unit, which is useful for scaling the environmental impacts of different activities, products, and services.

It is also recommended to include additional environmental impact indicators from EN 15804 to facilitate modularity,

The PCR shall give further information on relevant additional information to include in the EPD

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