

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH:
15804+A2, EN 16485 & ISO 14025

Product name:
Solid Oak Flooring



EPD holder:

Bembe Polska Sp. z o.o.

Issued on 15 June 2026

Valid until 15 June 2031

GENERAL INFORMATION

EPD OWNER

Manufacturer / EPD Holder	Bembe Polska Sp. z o.o.
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Website	www.bembe.pl

PRODUCT IDENTIFICATION

Product name	Solid Oak Flooring
Place(s) of production	Poland

EPD INFORMATION

EPD Polska program operator	Multicert Sp. z o.o. Ul. Mydlarska 47, 04-690 Warszawa, Poland www.epd.org.pl , epd@epd.org.pl
EPD standards	This EPD is in accordance with EN 15804+A2, and ISO 14025 standards.
Product category rules	EN 15804+A2 serves as the core PCR. EN 16485:2014 — is applied as the complementary c-PCR for wood and wood-based products.
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☒ External verification
EPD verifier	Izabela Sztamberek-Sochan, Ph.D.
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Registration:	EPD Polska www.epd.org.pl
Publishing date	15 June 2026
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Reasons for performing LCA	B2B
Accountability	The EPD Holder is responsible for the information provided and evidence. Multicert Sp. z o.o. does not hold responsibility for the manufacturer information, life cycle assessment data nor supporting evidence.

EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

COMPANY INFORMATION

HOLDER OF THE EPD

Bembe Polska Sp. z o.o.
ul. Komorowicka 43
43-300 Bielsko-Biała
Poland

BEMBE Polska Sp. z o.o. manufactures solid hardwood parquet flooring and wood mosaic products at its production facility located in Mysłowice, Poland. BEMBE Polska is among the largest European producers of solid wood mosaic parquet, with annual production exceeding 500,000 m² of flooring products.

The company specialises in the production of solid wood flooring manufactured primarily from European oak (*Quercus robur* / *Quercus petraea*), as well as selected hardwood species including beech, ash, cherry, maple, and American walnut. The product portfolio includes mosaic parquet, industrial parquet (HKL), parquet strips, and end grain mosaic (Hirnholz).

The manufacturing process includes timber drying, lamella preparation, parquet assembly, quality control, packaging, and dispatch. Manufacturing is carried out in accordance with applicable PN-EN technical standards. All wood raw material used in the declared products originates from sustainably managed forests within the European Union. Selected products additionally carry the Real Wood trademark and may carry FSC or PEFC certification.

Resource efficiency forms an integral part of the manufacturing process. Wood residues generated during production, including sawdust and offcuts, are internally utilised as fuel for combustion in furnaces or processed into secondary wood products such as briquettes and kindling, contributing to efficient utilisation of raw materials.

PRODUCT INFORMATION

PRODUCT DESCRIPTION

The products covered by this EPD are solid hardwood flooring elements manufactured predominantly from European oak (*Quercus robur* / *Quercus petraea*). The products are supplied unfinished, without factory-applied lacquer, oil, or surface coating.

All declared products are manufactured from oak staves kiln-dried in drying chambers. Depending on the product type, the lamellas are installed flat or on edge — mosaic parquet and HKL industrial parquet — or made from elements cut across the grain, as in end grain mosaic (Hirnholz). Individual lamellas are assembled mechanically using polyethylene mesh and hot-melt adhesive or adhesive tapes, depending on the product group.

PRODUCT VARIANTS

This EPD covers the following product groups:

No.	Product Group	Thickness [mm]	Assembly method
1	Mosaic Parquet — Traditional (flat-laid lamellas, PE mesh backing)	8mm	Lamellas bonded to PE mesh with hot-melt adhesive
2	Industrial Parquet HKL — Stabilo / Stabilette (edge-laid lamellas, adhesive tape backing)	10 / 16 / 18 / 23mm	Lamellas bonded with adhesive tape
3	End Grain Mosaic (Hirnholz)	18mm	End-grain wood blocks assembled into three-piece sets

Table 1. Product variants in scope of the EPD

Mosaic Parquet — Traditional (Mozaika Tradycyjna) 8 mm

Traditional mosaic parquet consists of solid oak lamellas laid flat and bonded to a polyethylene (PE) mesh backing using hot-melt adhesive. The lamellas are arranged in repeating geometric patterns, such as square, ladder, English bond and herringbone. The product is supplied unfinished and is intended for on-site surface finishing after installation.





Industrial Parquet HKL — Stabilo / Stabilette (Parkiet Przemysłowy HKL)

Industrial parquet HKL consists of solid oak lamellas laid on edge and joint with adhesive tape to form larger flooring units. The product is manufactured in thickness variants of 10, 16, 18, and 23 mm. Due to its compact structure and high wear resistance, the product is commonly used in commercial, public, and industrial interiors subjected to intensive use. The flooring is supplied unfinished.

**End Grain Mosaic (Hirnholz)
(Brak Dębowy)**

End Grain Mosaic consists of vertically oriented solid oak elements with exposed end-grain surface forming the wearing layer. Individual units are assembled from three bonded sub-elements. The end-grain arrangement provides increased resistance to abrasion and mechanical loading compared to conventional flat-grain parquet products. The product is manufactured with a nominal thickness of 18 mm and supplied unfinished.



REPRESENTATIVITY OF RESULTS

The declared unit is 1 m² of unfinished solid oak flooring at factory gate. All six products covered by this EPD are modelled individually using primary production data collected for the reference year 2025. The representative products are listed below:

No.	Product name	Thickness [mm]	Mass [kg/m ²]	Surface
1	Mosaic Parquet — Traditional, 8 mm	8	5.65	Unfinished
2	Industrial Parquet HKL-STABILO, 10 mm	10	7.50	Unfinished
3	Industrial Parquet HKL - STABILO, 16 mm	16	10.80	Unfinished
4	Industrial Parquet HKL - STABILETTE, 18 mm	18	12.80	Unfinished
5	Industrial Parquet HKL – STABILO, 23 mm	23	16.70	Unfinished
6	End Grain Mosaic (Hirnholz), 18 mm	18	12.80	Unfinished

Table 2. Representative products. Mass per declared unit at equilibrium moisture content of 9% (wet-basis).

PRODUCT APPLICATION

All products are intended for indoor use as flooring in residential, commercial, public, and industrial buildings.

Mosaic Parquet — Traditional is suited to residential and light commercial interiors. Its compatibility with underfloor heating systems makes it particularly appropriate for modern, energy-efficient construction. Typical applications include living rooms, bedrooms, corridors, hotel lobbies, and offices.

Industrial Parquet HKL is designed for applications requiring superior mechanical performance, including sports halls, workshops, retail spaces, school corridors, and other high-traffic commercial and public interiors. Thicker variants (18–23 mm) offer enhanced impact resistance and an extended service life with multiple renovation cycles.

End Grain Mosaic (Hirnholz) is intended for the most demanding applications: industrial floors, heavily trafficked public spaces, stairways, and heritage renovation projects. Its end-grain construction provides hardness and wear resistance approximately twice that of flat-grain oak flooring.

All products are designed for direct gluing to a prepared subfloor (cement screed, anhydrite screed, or wooden base) using appropriate wood flooring adhesive, in accordance with the manufacturer's technical instructions. Maintenance of indoor climate conditions (relative humidity 45–65%, temperature 18–25°C) is essential to long-term performance. Post-installation surface finishing is the responsibility of the installer and is not included in the scope of this EPD. The natural solid oak surface can be renovated by sanding and re-finishing, significantly extending service life beyond the reference service life of 40 years.

PRODUCT STANDARDS

The products covered by this EPD comply with the following technical standards:

- EN 13488:2002+A1:2006 – Wood flooring and parquet – Mosaic parquet elements – Requirements. Applies to traditional mosaic parquet (Product Group 1).
- EN 14761:2006+A1:2008 – Wood flooring – Solid wood parquet – Vertical finger, wide finger and module brick. Applies to industrial parquet HKL products (Product Group 2).
- EN 14342:2013 – Wood flooring – Characteristics, evaluation of conformity and marking. Basis for CE marking of all product groups under Regulation (EU) No 305/2011. Products are tested and classified with respect to dimensional stability, reaction to fire, thermal conductivity, slip resistance, and release of dangerous substances.

PRODUCT RAW MATERIAL COMPOSITION

All products are composed predominantly of solid European oak (*Quercus robur* / *Quercus petraea*). The non-wood components differ by product group as shown in Table 3. Composition figures are expressed as percentage by mass of the finished product at equilibrium moisture content (9% wet-basis), excluding packaging.

No.	Product	Oak wood	PE mesh	Adhesive tape
1	Mosaic Parquet, 8 mm	99.6%	0.4%	—
2	HKL 10 mm	99.8%	—	0.2%
3	HKL 16 mm	99.8%	—	0.2%
4	HKL 18 mm	99.8%	—	0.2%
5	HKL 23 mm	99.8%	—	0.2%
6	End Grain Mosaic (Hirnholz), 18 mm	99.7%	0.3%	—

SUBSTANCES, REACH - VERY HIGH CONCERN

The products covered by this EPD do not contain any substances listed on the REACH Candidate List of Substances of Very High Concern (SVHC) at a concentration above 0.1% by mass (1,000 ppm).

PRODUCT LIFE-CYCLE

RAW MATERIAL SUPPLY (A1)

Module A1 covers the procurement of all raw materials and auxiliary materials used in the production of the declared solid oak parquet flooring products.

The principal raw material is wet oak timber (*Quercus robur* / *Quercus petraea*) sourced from forests located within the European Union. The timber is delivered to the production facility in Mysłowice at its natural fresh moisture content and undergoes kiln drying in-house during module A3. Module A1 also includes the following auxiliary and packaging materials:

- PE mesh carrier (mosaic parquet and End Grain Mosaic): high-density polyethylene mesh.
- Hot-melt adhesive (mosaic parquet and End Grain Mosaic): used to bond lamellas to the PE mesh carrier.
- Adhesive tape (industrial parquet HKL): paper-backed tape used to bond lamella layers.
- Packaging materials: corrugated cardboard, stretch film, and PP strapping.

No lacquer, oil, stain, or any other surface coating is included in the declared product. All products are supplied unfinished.

TRANSPORT OF RAW MATERIALS (A2)

Module A2 covers the transport of all raw materials and auxiliary materials from suppliers to the BEMBE Polska production facility in Mysłowice, Poland.

Oak timber is transported by road using heavy-duty diesel trucks from suppliers located within Poland and neighbouring EU countries. Transport distances are based on representative supplier locations provided by the manufacturer. Auxiliary materials — PE mesh, adhesive tape, paraffin wax, and packaging components — are transported by road from suppliers located within Poland and the broader European market.

All road transport is modelled using a heavy-duty truck with a payload capacity above 16 tonnes.

MANUFACTURING (A3)

Module A3 covers all manufacturing operations carried out at the BEMBE Polska facility in Mysłowice, including timber drying, cutting and lamella production, product assembly, and packaging.

Timber drying: Wet oak staves received from suppliers are kiln-dried in-house to the target equilibrium moisture content. The kiln drying process is powered by heat generated from the combustion of sawdust produced during subsequent cutting operations. The sawdust boiler therefore represents an internal biomass energy loop: wood waste generated during manufacturing is used directly as fuel for drying, with no external heat source required beyond what the sawdust provides. The associated biogenic CO₂ emissions from sawdust combustion are accounted for within module A3.

Cutting and lamella production: Dried staves are cut into lamellas using precision saws. Sawdust and wood offcuts generated at this stage are partially directed to the on-site boiler as fuel. The remaining wood by-products — wood briquettes and kindling — are sold externally and treated as co-products leaving the system at the cut-off point, with no environmental burden allocated to the declared EPD products beyond the mass-based allocation applied to shared inputs.

Assembly: Lamellas are assembled into the respective product formats — mosaic parquet panels, industrial parquet HKL panels, or End Grain Mosaic units — using PE mesh with paraffin wax adhesive, or adhesive tape, depending on the product type.

Packaging: Finished products are packed in corrugated cardboard, wrapped in stretch film, and secured with PP strapping on wooden pallets.

Electricity consumption in module A3 is supplied from the national grid (Polish electricity mix, reference year 2025). Energy consumption data are based on primary, site-specific production data collected at the Mysłowice facility for the reference year 2025.

Liquid petroleum gas (LPG) is used for internal forklift operations within the facility. LPG consumption is allocated to the declared products using economic allocation, based on the ratio of the economic value of each declared product group to the total economic value of all products manufactured at the facility during the reference year 2025. No surface finishing processes are carried out at the facility. No lacquers, oils, adhesives for flooring installation, or chemical treatments are applied to the declared products.

TRANSPORT TO CONSTRUCTION SITE AND INSTALLATION (A4, A5)

Modules A4 and A5 are not declared in this EPD. Transport to the construction site and installation conditions depend on specific project arrangements and are outside the control of the manufacturer.

USE STAGE (B1–B7)

Modules B1–B7 are not relevant for the declared products. Solid wood flooring elements do not consume energy or water during the use stage and do not require maintenance or replacement within the declared reference service life of 40 years, provided appropriate installation and indoor climate conditions are observed.

END OF LIFE STAGE (C1, C2, C3, C4)

At the end of life, it is assumed that 100% of the solid oak parquet flooring is manually dismantled and collected as separated waste, without requiring any additional material inputs or auxiliary energy during this stage (C1). After removal, the waste flooring is transported an average distance of approximately 100 km to an authorised waste treatment facility (C2).

In the adopted scenario, the entire product undergoes incineration with energy recovery. The incineration process is modelled with an overall efficiency greater than 60%. In accordance with EN 16485:2014 — Product category rules for wood and wood-based products for use in construction — thermal waste treatment above this efficiency threshold is reported within Module C3 as an energy recovery process, rather than disposal. Consequently, Module C4 shows no impacts (0), since this module is reserved for waste treatment operations without energy recovery or with an efficiency below 60%.

BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY (D)

In Module D, environmental benefits are credited for the substitution of conventional energy production. Heat and electricity obtained from the incineration of waste wood and packaging materials are considered to displace equivalent amounts of grid electricity and heat from conventional fossil sources. This credit reflects the positive contribution of biogenic energy recovery to the overall life cycle balance of the product.

LIFE-CYCLE ASSESSMENT

LIFE-CYCLE ASSESSMENT INFORMATION

Period for data	2025
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DECLARED AND FUNCTIONAL UNIT

Declared Unit	1 m ² of unfinished solid oak flooring at factory gate
Mass per Declared Unit	Product-specific — see Table 2

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

No.	Product	Biogenic carbon in product [kg C / m ²]	Biogenic carbon in packaging [kg C / m ²]
1	Mosaic Parquet, 8 mm	1,38	0,05
2	HKL 10 mm — Stabilo	1,72	0,07
3	HKL 16 mm — Stabilo	2,75	0,09
4	HKL 18 mm — Stabilette	3,10	0,12
5	HKL 23 mm — Stabilo	3,96	0,10
6	End Grain Mosaic, 18 mm	3,10	0,15

Note: Biogenic carbon in the product represents the carbon stored in the solid oak wood at the time of leaving the factory gate, calculated as dry mass of wood in the product × 0.50, in accordance with EN 16449:2014. This carbon is temporarily stored during the product service life and released at end of life through incineration (Module C3). Biogenic carbon in packaging originates from corrugated cardboard and wooden pallets and is released at end of life through incineration or composting.

SYSTEM BOUNDARY

The scope of this EPD is "cradle to gate with options" in accordance with EN 15804+A2. The study covers the product stage A1–A3 and additionally includes the following optional modules: C1–C4 (end-of-life: deconstruction, waste transport, waste processing and energy recovery) and D (benefits and loads beyond the system boundary).

Module A4 is marked as MND (Module Not Declared). Transport to the construction site depends on project-specific logistics arrangements outside the control of the manufacturer.

Module A5 is marked as MND. Installation conditions vary significantly depending on the specific project and are therefore outside the declared scope.

Modules B1–B7 are marked as MNR (Module Not Relevant). The declared products are solid wood flooring elements that do not consume energy or water during the use stage and do not require maintenance or replacement within the declared reference service life of 40 years, provided appropriate installation and maintenance conditions are observed.

Product stage		Assembly stage			Use stage							End of life stage				Beyond the system boundaries	
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
X	X	X	MND	MND	MNR	MNR	MNR	MNR	MNR	MNR	MNR	X	X	X	X	X	
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deinstallation/Demolition	Transport	Waste processing	Disposal	Reuse / Recycling	

X – module included/declared

MND – Module Not Declared

MNR – Module Not Relevant

CUT-OFF CRITERIA

The study fully covers all mandatory modules and processes required by EN 15804:2012+A2:2019. No hazardous materials or substances have been omitted from the system boundary.

All major raw material and energy inputs are included in the assessment. All inputs and outputs from unit processes for which data are available are taken into account in the calculations. No single neglected unit process exceeds 1% of the total mass or energy flows. The total of all neglected input and output flows does not exceed 5% of the total energy use or mass.

The production of capital goods and manufacturing equipment, construction of production infrastructure, and the maintenance and operation of capital equipment are excluded from the system boundary. Personnel-related activities, as well as energy and water use associated with company management and administrative activities, are also excluded from the scope of this study.

ESTIMATES AND ASSUMPTIONS

The life cycle assessment underlying this EPD was carried out in accordance with EN 15804:2012+A2:2019 and EN 16485:2014, applying established rules for system boundaries, allocation, cut-off criteria, and data quality.

The LCA model is based on a combination of product-specific primary data and site-level operational data collected at the BEMBE Polska production facility in Mysłowice for the reference year 2025.

Modules A1–A3

All relevant primary data were provided by the manufacturer and included in the assessment. The wood input in module A1 is modelled as wet sawn hardwood, reflecting the actual delivery condition of oak friezes its natural fresh moisture content.

The biogenic carbon content of the wood input is calculated in accordance with EN 16449:2014, using an oven-dry density of 640.2 kg/m³ for European oak, derived from the ÖKOBAUDAT generic dataset "Timber oak (generic)" (Sphera Solutions GmbH, reference year 2023).

Average transport distances for input materials were calculated based on representative supplier locations and allocated to the declared unit.

Electricity from the national grid (Polish electricity mix, reference year 2025) is used to power the production processes.

Process heat for timber drying is provided by the combustion of sawdust generated during production.

Residual ash generated from sawdust combustion in the on-site boiler is collected and treated as non-hazardous solid waste; the associated disposal impacts are included within module A3.

Packaging waste generated during production — including waste plastic film and waste paperboard — is collected separately and directed to appropriate waste treatment, modelled using national waste treatment datasets for Poland. These waste streams are allocated to the declared products using economic allocation, consistent with the allocation approach applied to auxiliary materials and packaging.

Module C1

100% of the parquet flooring is assumed to be manually dismantled and collected as separated waste at end of life, without any additional material or energy consumption during this stage.

Module C2

The removed waste flooring is transported an average distance of 100 km to an authorised waste treatment facility, using a heavy-duty truck.

Module C3

The entire product is assumed to undergo incineration with energy recovery. The incineration process is modelled with an overall efficiency greater than 60%. In accordance with EN 16485:2014, the associated impacts are reported in Module C3 as thermal energy recovery.

Module C4

No impacts are reported in Module C4. In accordance with EN 16485:2014, the entire end-of-life treatment — including incineration and management of residual ash — is reported within Module C3 as a single energy recovery process with overall efficiency greater than 60%. Module C4 is reserved exclusively for waste disposal operations without energy recovery or with efficiency below this threshold.

Module D

Environmental credits are accounted for the substitution of conventional heat and electricity production by energy recovered from the incineration of waste wood and packaging materials at end of life.

ALLOCATION

Allocation was carried out in accordance with EN 15804+A2:2019 and EN 16485:2014, applying a hierarchical approach that prioritises the use of product-specific primary data where available, and allocation based on representative physical or economic parameters for shared production flows.

The BEMBE Polska production facility manufactures multiple product types simultaneously, including mosaic parquet, industrial parquet HKL in several thickness variants, End Grain Mosaic, and secondary wood products such as briquettes and kindling. All declared EPD products are manufactured from the same oak lamellas and share common production infrastructure, energy systems, and waste streams.

For inputs and outputs that could be directly attributed to individual products — including wood volume per declared unit and PE mesh — no allocation was required, as these flows are product-specific.

Three allocation approaches are applied, depending on the nature of the shared flow:

Mass-based allocation (dry wood mass) is applied to flows directly driven by the quantity of wood processed: wood raw material input, transport of wood, sawdust combustion for process heat, and process water for wood humidification. Allocation is based on the ratio of dry wood mass attributed to each declared product to the total dry wood mass processed at the facility during the reference year 2025.

Thickness-based allocation is applied to electricity consumption. As all products are manufactured from the same lamellas and energy demand for cutting and processing is proportional to the number of cuts and the product thickness, electricity is allocated in proportion to the declared product thickness relative to the total thickness of all products manufactured during the reference year 2025.

Economic allocation is applied to auxiliary materials and

packaging — including paraffin wax, adhesive tape, finished product packaging, wooden pallets — as well as to waste streams including boiler ash and production packaging waste. Allocation is based on the ratio of the economic value of each declared product group to the total economic value of all products manufactured at the facility during the reference year 2025.

Secondary wood products — including wood briquettes, kindling, and wood offcuts sold externally — are treated as co-products leaving the system at the cut-off point in accordance with EN 15804+A2. No environmental burden is allocated beyond the allocation factors applied to the declared EPD products and the remaining co-product streams.

DATA QUALITY

The life cycle assessment is based on high-quality primary data collected by BEMBE Polska Sp. z o.o. for the reference year 2025.

Product-specific primary data were available for the key physical parameters of each declared product, including the dry wood mass and geometric volume of wood per declared unit, auxiliary material consumption (PE mesh, paraffin wax, adhesive tape), finished product packaging materials, and production waste streams. These data are based on production records and direct measurements carried out at the Mysłowice facility.

For shared production flows that could not be measured at the level of individual products — including electricity consumption, process water, and sawdust generation — representative site-level operational data were used, allocated to the declared products using the allocation approaches described above.

The biogenic carbon content of the wood input is calculated using the oven-dry density of European oak derived from the ÖKOBAUDAT generic dataset "Timber oak (generic)" (Sphera Solutions GmbH, reference year 2023), applied in conjunction with the EN 16449:2014 calculation methodology. This represents secondary data used as a reference parameter in the absence of product-specific density measurements.

All background datasets — including those for energy supply, transport, raw material extraction, and waste treatment — are sourced from the ecoinvent v3.9.1 database, using the cut-off system model.

Electricity consumption in module A3 is modelled using the national electricity mix for Poland. For climate change modelling, the default GWP factor of the ecoinvent electricity dataset was replaced with a national factor based on KOBiZE 2024 operational emission data, extended to include upstream emissions (fuel supply, methane emissions from coal extraction and infrastructure-related contributions), as documented in the background LCA report.

All major material and energy inputs are included in the assessment. No single excluded process exceeds 1% of total mass or energy flows, and the cumulative contribution of excluded processes remains below 5%, in accordance with the applied cut-off criteria.

The overall data quality is considered high and appropriate for the intended use of this EPD.

GEOGRAPHIC REPRESENTATIVENESS

The product system is manufactured and managed in Poland (Europe).

ENVIRONMENTAL IMPACT DATA – Mosaic Parquet 8 mm

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
GWP-Total	kg CO2 eq.	-9,79E+00	4,30E-01	2,76E+00	-6,61E+00	MND	MNR	0,00E+00	1,04E-01	9,48E+00	0,00E+00	-4,07E+00
GWP-fossil	kg CO2 eq.	6,32E-01	4,29E-01	1,89E+00	2,95E+00	MND	MNR	0,00E+00	1,03E-01	9,72E-02	0,00E+00	-4,07E+00
GWP-biogenic	kg CO2 eq.	-1,04E+01	3,40E-04	8,69E-01	-9,57E+00	MND	MNR	0,00E+00	9,48E-05	9,38E+00	0,00E+00	-2,66E-03
GWP-LULUC	kg CO2 eq.	1,03E-02	2,10E-04	6,00E-04	1,11E-02	MND	MNR	0,00E+00	5,11E-05	2,61E-05	0,00E+00	-6,10E-04
ODP	kg CFC-11 eq.	1,11E-08	9,74E-09	9,24E-09	3,01E-08	MND	MNR	0,00E+00	2,25E-09	1,70E-09	0,00E+00	-1,78E-07
AP	mol H+ eq.	3,15E-03	1,06E-03	1,43E-02	1,85E-02	MND	MNR	0,00E+00	2,30E-04	1,04E-03	0,00E+00	-3,33E-03
EP-freshwater	kg P eq.	2,70E-04	3,18E-05	2,18E-03	2,48E-03	MND	MNR	0,00E+00	7,35E-06	4,36E-05	0,00E+00	-1,40E-04
EP-marine	kg N eq.	1,06E-03	2,90E-04	2,50E-03	3,85E-03	MND	MNR	0,00E+00	5,71E-05	5,50E-04	0,00E+00	-1,02E-03
EP-terrestrial	mol N eq.	1,08E-02	2,96E-03	2,30E-02	3,68E-02	MND	MNR	0,00E+00	5,80E-04	5,31E-03	0,00E+00	-1,10E-02
POCP	kg NMVOC eq.	6,01E-03	1,73E-03	6,39E-03	1,41E-02	MND	MNR	0,00E+00	3,50E-04	1,35E-03	0,00E+00	-7,07E-03
ADPE (disc.2)	kg Sb eq.	1,26E-06	8,38E-07	7,23E-07	2,82E-06	MND	MNR	0,00E+00	2,41E-07	1,24E-07	0,00E+00	-1,70E-06
ADPF (disc.2)	MJ, (NCV)	1,20E+01	6,56E+00	2,15E+01	4,01E+01	MND	MNR	0,00E+00	1,48E+00	8,53E-01	0,00E+00	-6,06E+01
WDP (disc.2)	m3 World eq.	2,44E-01	3,37E-02	4,14E-01	6,91E-01	MND	MNR	0,00E+00	7,35E-03	4,28E-01	0,00E+00	-1,41E-01
Acronyms	GWP-total – Climate change, total global warming potential; GWP-fossil – Climate change, fossil fuels; GWP-biogenic – Climate change, biogenic carbon; GWP-luluc – Climate change, land use and land use change; ODP – Ozone layer depletion; AP – Acidification of terrestrial and freshwater environments; EP-freshwater – Eutrophication, freshwater; EP-marine – Eutrophication, marine; EP-terrestrial – Eutrophication, terrestrial; POCP – Photochemical ozone formation (smog formation); ADPE – Abiotic depletion, minerals and metals; ADPF – Abiotic depletion, fossil fuels; WDP – Water scarcity (water use deprivation potential); NCV - net calorific value.											
Disclaimer 2	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.											

ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
PM	Disease Incidence	4,31E-08	3,22E-08	7,10E-08	1,46E-07	MND	MNR	0,00E+00	6,16E-09	1,12E-08	0,00E+00	-1,89E-08
IRP (disc.1)	kBq U235 eq.	6,66E-02	8,27E-03	6,34E-02	1,38E-01	MND	MNR	0,00E+00	1,99E-03	1,00E-03	0,00E+00	-6,08E-02
ETP-fw (disc.2)	CTUe	4,26E+00	3,13E+00	5,83E+00	1,32E+01	MND	MNR	0,00E+00	7,25E-01	7,29E-01	0,00E+00	-3,02E+00
HTP-c (disc.2)	CTUh	8,23E-10	1,88E-10	6,88E-10	1,70E-09	MND	MNR	0,00E+00	4,63E-11	2,66E-10	0,00E+00	-9,32E-10
HTP-nc (disc.2)	CTUh	4,95E-09	4,01E-09	2,38E-08	3,27E-08	MND	MNR	0,00E+00	9,08E-10	1,26E-08	0,00E+00	-7,46E-09
SQP (disc.2)	Dimensionless	8,52E+02	6,57E+00	4,59E+00	8,63E+02	MND	MNR	0,00E+00	8,88E-01	2,37E-01	0,00E+00	-1,40E+00
Acronyms	PM – Particulate matter emissions (potential incidence of disease); IRP – Ionising radiation, human health exposure potential; ETP-fw – Ecotoxicity, freshwater; HTP-c – Human toxicity, cancer effects; HTP-nc – Human toxicity, non-cancer effects; SQP – Land use related impacts, soil quality.											
Disclaimer 1	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.											
Disclaimer 2	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.											

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
PERE	MJ, (NCV)	1,69E+02	9,58E-02	1,96E+00	1,71E+02	MND	MNR	0,00E+00	2,31E-02	2,09E-02	0,00E+00	-5,79E-01
PERM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ, (NCV)	1,69E+02	9,58E-02	1,96E+00	1,71E+02	MND	MNR	0,00E+00	2,31E-02	2,09E-02	0,00E+00	-5,79E-01
PENRE	MJ, (NCV)	1,20E+01	6,56E+00	2,15E+01	4,01E+01	MND	MNR	0,00E+00	1,48E+00	8,53E-01	0,00E+00	-6,06E+01
PENRM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ, (NCV)	1,20E+01	6,56E+00	2,15E+01	4,01E+01	MND	MNR	0,00E+00	1,48E+00	8,53E-01	0,00E+00	-6,06E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	8,73E-03	1,15E-03	5,75E-02	6,74E-02	MND	MNR	0,00E+00	2,40E-04	2,07E-03	0,00E+00	-4,56E-03
Acronyms	PERE – Use of renewable primary energy as energy carriers; PERM – Use of renewable primary energy resources as raw materials; PERT – Total use of renewable primary energy resources (PERE + PERM); PENRE – Use of non-renewable primary energy as energy carriers; PENRM – Use of non-renewable primary energy resources as raw materials; PENRT – Total use of non-renewable primary energy resources (PENRE + PENRM); SM – Use of secondary material; RSF – Use of renewable secondary fuels; NRSF – Use of non-renewable secondary fuels; FW – Net use of fresh water; NCV - net calorific value.											

OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	5,58E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	5,30E+01	0,00E+00	0,00E+00
Acronyms	CRU – Components for re-use; MFR – Materials for recycling; MER – Materials for energy recovery; EEE – Exported electrical energy; EET – Exported thermal energy.											

WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
HWD	kg	4,78E-05	4,05E-05	1,55E-05	1,04E-04	MND	MNR	0,00E+00	9,37E-06	4,21E-06	0,00E+00	-2,50E-04
NHWD	kg	3,27E-02	1,60E-04	3,40E-04	3,32E-02	MND	MNR	0,00E+00	4,17E-05	8,21E-05	0,00E+00	-9,50E-04
RWD	kg	1,69E-05	2,00E-06	1,56E-05	3,45E-05	MND	MNR	0,00E+00	4,83E-07	2,48E-07	0,00E+00	-1,55E-05
Acronyms	HWD – Hazardous waste disposed; NHWD – Non-hazardous waste disposed; RWD – Radioactive waste disposed.											

ENVIRONMENTAL IMPACT DATA – Industrial Parquet HKL 10 mm Stabilo

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
GWP-Total	kg CO2 eq.	-1,23E+01	5,39E-01	3,90E+00	-7,86E+00	MND	MNR	0,00E+00	1,30E-01	1,19E+01	0,00E+00	-5,09E+00
GWP-fossil	kg CO2 eq.	7,55E-01	5,38E-01	2,81E+00	4,10E+00	MND	MNR	0,00E+00	1,29E-01	1,21E-01	0,00E+00	-5,08E+00
GWP-biogenic	kg CO2 eq.	-1,31E+01	4,30E-04	1,09E+00	-1,20E+01	MND	MNR	0,00E+00	1,20E-04	1,17E+01	0,00E+00	-3,33E-03
GWP-LULUC	kg CO2 eq.	1,29E-02	2,60E-04	8,90E-04	1,40E-02	MND	MNR	0,00E+00	6,38E-05	3,26E-05	0,00E+00	-7,70E-04
ODP	kg CFC-11 eq.	1,43E-08	1,22E-08	1,36E-08	4,01E-08	MND	MNR	0,00E+00	2,82E-09	2,13E-09	0,00E+00	-2,23E-07
AP	mol H+ eq.	4,02E-03	1,33E-03	2,11E-02	2,64E-02	MND	MNR	0,00E+00	2,80E-04	1,30E-03	0,00E+00	-4,16E-03
EP-freshwater	kg P eq.	3,50E-04	3,98E-05	3,26E-03	3,65E-03	MND	MNR	0,00E+00	9,19E-06	5,45E-05	0,00E+00	-1,80E-04
EP-marine	kg N eq.	1,33E-03	3,60E-04	3,59E-03	5,28E-03	MND	MNR	0,00E+00	7,13E-05	6,90E-04	0,00E+00	-1,28E-03
EP-terrestrial	mol N eq.	1,34E-02	3,71E-03	3,28E-02	4,99E-02	MND	MNR	0,00E+00	7,20E-04	6,63E-03	0,00E+00	-1,37E-02
POCP	kg NMVOC eq.	7,44E-03	2,17E-03	9,16E-03	1,88E-02	MND	MNR	0,00E+00	4,40E-04	1,69E-03	0,00E+00	-8,84E-03
ADPE (disc.2)	kg Sb eq.	1,56E-06	1,05E-06	1,04E-06	3,66E-06	MND	MNR	0,00E+00	3,01E-07	1,55E-07	0,00E+00	-2,12E-06
ADPF (disc.2)	MJ, (NCV)	1,35E+01	8,22E+00	3,20E+01	5,37E+01	MND	MNR	0,00E+00	1,85E+00	1,07E+00	0,00E+00	-7,57E+01
WDP (disc.2)	m3 World eq.	3,02E-01	4,23E-02	6,14E-01	9,59E-01	MND	MNR	0,00E+00	9,19E-03	5,35E-01	0,00E+00	-1,76E-01
Acronyms	GWP-total – Climate change, total global warming potential; GWP-fossil – Climate change, fossil fuels; GWP-biogenic – Climate change, biogenic carbon; GWP-luluc – Climate change, land use and land use change; ODP – Ozone layer depletion; AP – Acidification of terrestrial and freshwater environments; EP-freshwater – Eutrophication, freshwater; EP-marine – Eutrophication, marine; EP-terrestrial – Eutrophication, terrestrial; POCP – Photochemical ozone formation (smog formation); ADPE – Abiotic depletion, minerals and metals; ADPF – Abiotic depletion, fossil fuels; WDP – Water scarcity (water use deprivation potential); NCV - net calorific value.											
Disclaimer 2	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.											

ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
PM	Disease Incidence	5,32E-08	4,03E-08	9,41E-08	1,88E-07	MND	MNR	0,00E+00	7,70E-09	1,40E-08	0,00E+00	-2,37E-08
IRP (disc.1)	kBq U235 eq.	8,47E-02	1,04E-02	9,40E-02	1,89E-01	MND	MNR	0,00E+00	2,49E-03	1,25E-03	0,00E+00	-7,60E-02
ETP-fw (disc.2)	CTUe	5,37E+00	3,92E+00	8,66E+00	1,79E+01	MND	MNR	0,00E+00	9,06E-01	9,12E-01	0,00E+00	-3,78E+00
HTP-c (disc.2)	CTUh	1,04E-09	2,35E-10	9,98E-10	2,28E-09	MND	MNR	0,00E+00	5,79E-11	3,33E-10	0,00E+00	-1,17E-09
HTP-nc (disc.2)	CTUh	6,17E-09	5,03E-09	3,50E-08	4,62E-08	MND	MNR	0,00E+00	1,13E-09	1,57E-08	0,00E+00	-9,33E-09
SQP (disc.2)	Dimensionless	1,07E+03	8,22E+00	6,83E+00	1,08E+03	MND	MNR	0,00E+00	1,11E+00	2,97E-01	0,00E+00	-1,75E+00
Acronyms	PM – Particulate matter emissions (potential incidence of disease); IRP – Ionising radiation, human health exposure potential; ETP-fw – Ecotoxicity, freshwater; HTP-c – Human toxicity, cancer effects; HTP-nc – Human toxicity, non-cancer effects; SQP – Land use related impacts, soil quality.											
Disclaimer 1	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.											
Disclaimer 2	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.											

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
PERE	MJ, (NCV)	2,11E+02	1,20E-01	2,92E+00	2,14E+02	MND	MNR	0,00E+00	2,89E-02	2,61E-02	0,00E+00	-7,24E-01
PERM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ, (NCV)	2,11E+02	1,20E-01	2,92E+00	2,14E+02	MND	MNR	0,00E+00	2,89E-02	2,61E-02	0,00E+00	-7,24E-01
PENRE	MJ, (NCV)	1,35E+01	8,22E+00	3,20E+01	5,37E+01	MND	MNR	0,00E+00	1,85E+00	1,07E+00	0,00E+00	-7,57E+01
PENRM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ, (NCV)	1,35E+01	8,22E+00	3,20E+01	5,37E+01	MND	MNR	0,00E+00	1,85E+00	1,07E+00	0,00E+00	-7,57E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	1,06E-02	1,45E-03	8,51E-02	9,72E-02	MND	MNR	0,00E+00	3,00E-04	2,59E-03	0,00E+00	-5,70E-03
Acronyms	PERE – Use of renewable primary energy as energy carriers; PERM – Use of renewable primary energy resources as raw materials; PERT – Total use of renewable primary energy resources (PERE + PERM); PENRE – Use of non-renewable primary energy as energy carriers; PENRM – Use of non-renewable primary energy resources as raw materials; PENRT – Total use of non-renewable primary energy resources (PENRE + PENRM); SM – Use of secondary material; RSF – Use of renewable secondary fuels; NRSF – Use of non-renewable secondary fuels; FW – Net use of fresh water; NCV - net calorific value.											

OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	6,98E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	6,62E+01	0,00E+00	0,00E+00
Acronyms	CRU – Components for re-use; MFR – Materials for recycling; MER – Materials for energy recovery; EEE – Exported electrical energy; EET – Exported thermal energy.											

WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
HWD	kg	6,18E-05	5,08E-05	2,24E-05	1,35E-04	MND	MNR	0,00E+00	1,17E-05	5,26E-06	0,00E+00	-3,20E-04
NHWD	kg	4,12E-02	2,00E-04	5,00E-04	4,19E-02	MND	MNR	0,00E+00	5,21E-05	1,00E-04	0,00E+00	-1,18E-03
RWD	kg	2,16E-05	2,51E-06	2,31E-05	4,71E-05	MND	MNR	0,00E+00	6,04E-07	3,10E-07	0,00E+00	-1,93E-05
Acronyms	HWD – Hazardous waste disposed; NHWD – Non-hazardous waste disposed; RWD – Radioactive waste disposed.											

ENVIRONMENTAL IMPACT DATA – Industrial Parquet HKL 16 mm Stabilo

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
GWP-Total	kg CO2 eq.	-1,97E+01	8,59E-01	5,51E+00	-1,33E+01	MND	MNR	0,00E+00	2,07E-01	1,90E+01	0,00E+00	-8,14E+00
GWP-fossil	kg CO2 eq.	1,15E+00	8,58E-01	3,77E+00	5,77E+00	MND	MNR	0,00E+00	2,07E-01	1,94E-01	0,00E+00	-8,13E+00
GWP-biogenic	kg CO2 eq.	-2,08E+01	6,80E-04	1,74E+00	-1,91E+01	MND	MNR	0,00E+00	1,90E-04	1,88E+01	0,00E+00	-5,32E-03
GWP-LULUC	kg CO2 eq.	2,04E-02	4,20E-04	1,20E-03	2,20E-02	MND	MNR	0,00E+00	1,00E-04	5,22E-05	0,00E+00	-1,23E-03
ODP	kg CFC-11 eq.	2,17E-08	1,95E-08	1,85E-08	5,96E-08	MND	MNR	0,00E+00	4,50E-09	3,40E-09	0,00E+00	-3,57E-07
AP	mol H+ eq.	6,01E-03	2,12E-03	2,86E-02	3,67E-02	MND	MNR	0,00E+00	4,50E-04	2,07E-03	0,00E+00	-6,66E-03
EP-freshwater	kg P eq.	5,30E-04	6,34E-05	4,35E-03	4,94E-03	MND	MNR	0,00E+00	1,47E-05	8,71E-05	0,00E+00	-2,90E-04
EP-marine	kg N eq.	2,03E-03	5,80E-04	4,99E-03	7,60E-03	MND	MNR	0,00E+00	1,10E-04	1,10E-03	0,00E+00	-2,05E-03
EP-terrestrial	mol N eq.	2,06E-02	5,92E-03	4,60E-02	7,25E-02	MND	MNR	0,00E+00	1,16E-03	1,06E-02	0,00E+00	-2,20E-02
POCP	kg NMVOC eq.	1,16E-02	3,46E-03	1,28E-02	2,78E-02	MND	MNR	0,00E+00	7,00E-04	2,70E-03	0,00E+00	-1,41E-02
ADPE (disc.2)	kg Sb eq.	2,32E-06	1,67E-06	1,45E-06	5,44E-06	MND	MNR	0,00E+00	4,81E-07	2,48E-07	0,00E+00	-3,40E-06
ADPF (disc.2)	MJ, (NCV)	2,01E+01	1,31E+01	4,30E+01	7,62E+01	MND	MNR	0,00E+00	2,96E+00	1,71E+00	0,00E+00	-1,21E+02
WDP (disc.2)	m3 World eq.	4,29E-01	6,74E-02	8,27E-01	1,32E+00	MND	MNR	0,00E+00	1,47E-02	8,56E-01	0,00E+00	-2,81E-01
Acronyms	GWP-total – Climate change, total global warming potential; GWP-fossil – Climate change, fossil fuels; GWP-biogenic – Climate change, biogenic carbon; GWP-luluc – Climate change, land use and land use change; ODP – Ozone layer depletion; AP – Acidification of terrestrial and freshwater environments; EP-freshwater – Eutrophication, freshwater; EP-marine – Eutrophication, marine; EP-terrestrial – Eutrophication, terrestrial; POCP – Photochemical ozone formation (smog formation); ADPE – Abiotic depletion, minerals and metals; ADPF – Abiotic depletion, fossil fuels; WDP – Water scarcity (water use deprivation potential); NCV - net calorific value.											
Disclaimer 2	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.											

ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
PM	Disease Incidence	8,15E-08	6,43E-08	1,41E-07	2,87E-07	MND	MNR	0,00E+00	1,23E-08	2,24E-08	0,00E+00	-3,79E-08
IRP (disc.1)	kBq U235 eq.	1,27E-01	1,65E-02	1,27E-01	2,70E-01	MND	MNR	0,00E+00	3,97E-03	2,00E-03	0,00E+00	-1,22E-01
ETP-fw (disc.2)	CTUe	8,27E+00	6,25E+00	1,16E+01	2,62E+01	MND	MNR	0,00E+00	1,45E+00	1,46E+00	0,00E+00	-6,04E+00
HTP-c (disc.2)	CTUh	1,56E-09	3,75E-10	1,37E-09	3,30E-09	MND	MNR	0,00E+00	9,25E-11	5,33E-10	0,00E+00	-1,86E-09
HTP-nc (disc.2)	CTUh	9,34E-09	8,01E-09	4,75E-08	6,48E-08	MND	MNR	0,00E+00	1,81E-09	2,52E-08	0,00E+00	-1,49E-08
SQP (disc.2)	Dimensionless	1,70E+03	1,31E+01	9,17E+00	1,72E+03	MND	MNR	0,00E+00	1,77E+00	4,75E-01	0,00E+00	-2,80E+00
Acronyms	PM – Particulate matter emissions (potential incidence of disease); IRP – Ionising radiation, human health exposure potential; ETP-fw – Ecotoxicity, freshwater; HTP-c – Human toxicity, cancer effects; HTP-nc – Human toxicity, non-cancer effects; SQP – Land use related impacts, soil quality.											
Disclaimer 1	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.											
Disclaimer 2	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.											

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
PERE	MJ, (NCV)	3,37E+02	1,91E-01	3,92E+00	3,41E+02	MND	MNR	0,00E+00	4,61E-02	4,17E-02	0,00E+00	-1,16E+00
PERM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ, (NCV)	3,37E+02	1,91E-01	3,92E+00	3,41E+02	MND	MNR	0,00E+00	4,61E-02	4,17E-02	0,00E+00	-1,16E+00
PENRE	MJ, (NCV)	2,01E+01	1,31E+01	4,30E+01	7,62E+01	MND	MNR	0,00E+00	2,96E+00	1,71E+00	0,00E+00	-1,21E+02
PENRM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ, (NCV)	2,01E+01	1,31E+01	4,30E+01	7,62E+01	MND	MNR	0,00E+00	2,96E+00	1,71E+00	0,00E+00	-1,21E+02
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	1,50E-02	2,30E-03	1,14E-01	1,31E-01	MND	MNR	0,00E+00	4,90E-04	4,15E-03	0,00E+00	-9,13E-03
Acronyms	PERE – Use of renewable primary energy as energy carriers; PERM – Use of renewable primary energy resources as raw materials; PERT – Total use of renewable primary energy resources (PERE + PERM); PENRE – Use of non-renewable primary energy as energy carriers; PENRM – Use of non-renewable primary energy resources as raw materials; PENRT – Total use of non-renewable primary energy resources (PENRE + PENRM); SM – Use of secondary material; RSF – Use of renewable secondary fuels; NRSF – Use of non-renewable secondary fuels; FW – Net use of fresh water; NCV - net calorific value.											

OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	1,06E+01	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	1,06E+02	0,00E+00	0,00E+00
Acronyms	CRU – Components for re-use; MFR – Materials for recycling; MER – Materials for energy recovery; EEE – Exported electrical energy; EET – Exported thermal energy.											

WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
HWD	kg	9,55E-05	8,10E-05	3,10E-05	2,07E-04	MND	MNR	0,00E+00	1,87E-05	8,42E-06	0,00E+00	-5,10E-04
NHWD	kg	6,54E-02	3,10E-04	6,80E-04	6,64E-02	MND	MNR	0,00E+00	8,33E-05	1,60E-04	0,00E+00	-1,89E-03
RWD	kg	3,24E-05	3,99E-06	3,11E-05	6,75E-05	MND	MNR	0,00E+00	9,65E-07	4,96E-07	0,00E+00	-3,09E-05
Acronyms	HWD – Hazardous waste disposed; NHWD – Non-hazardous waste disposed; RWD – Radioactive waste disposed.											

ENVIRONMENTAL IMPACT DATA – Industrial Parquet HKL 18 mm Stabilette

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
GWP-Total	kg CO2 eq.	-2,21E+01	9,67E-01	6,20E+00	-1,50E+01	MND	MNR	0,00E+00	2,33E-01	2,13E+01	0,00E+00	-9,15E+00
GWP-fossil	kg CO2 eq.	1,32E+00	9,66E-01	4,25E+00	6,53E+00	MND	MNR	0,00E+00	2,33E-01	2,19E-01	0,00E+00	-9,15E+00
GWP-biogenic	kg CO2 eq.	-2,35E+01	7,70E-04	1,95E+00	-2,15E+01	MND	MNR	0,00E+00	2,10E-04	2,11E+01	0,00E+00	-5,99E-03
GWP-LULUC	kg CO2 eq.	2,30E-02	4,70E-04	1,36E-03	2,48E-02	MND	MNR	0,00E+00	1,10E-04	5,87E-05	0,00E+00	-1,38E-03
ODP	kg CFC-11 eq.	2,47E-08	2,19E-08	2,08E-08	6,75E-08	MND	MNR	0,00E+00	5,06E-09	3,83E-09	0,00E+00	-4,01E-07
AP	mol H+ eq.	6,87E-03	2,39E-03	3,21E-02	4,14E-02	MND	MNR	0,00E+00	5,10E-04	2,33E-03	0,00E+00	-7,49E-03
EP-freshwater	kg P eq.	6,10E-04	7,14E-05	4,90E-03	5,58E-03	MND	MNR	0,00E+00	1,65E-05	9,80E-05	0,00E+00	-3,30E-04
EP-marine	kg N eq.	2,32E-03	6,50E-04	5,62E-03	8,59E-03	MND	MNR	0,00E+00	1,30E-04	1,24E-03	0,00E+00	-2,30E-03
EP-terrestrial	mol N eq.	2,35E-02	6,66E-03	5,18E-02	8,20E-02	MND	MNR	0,00E+00	1,30E-03	1,19E-02	0,00E+00	-2,47E-02
POCP	kg NMVOC eq.	1,32E-02	3,89E-03	1,44E-02	3,14E-02	MND	MNR	0,00E+00	7,90E-04	3,04E-03	0,00E+00	-1,59E-02
ADPE (disc.2)	kg Sb eq.	2,67E-06	1,88E-06	1,63E-06	6,18E-06	MND	MNR	0,00E+00	5,41E-07	2,78E-07	0,00E+00	-3,82E-06
ADPF (disc.2)	MJ, (NCV)	2,34E+01	1,48E+01	4,84E+01	8,65E+01	MND	MNR	0,00E+00	3,33E+00	1,92E+00	0,00E+00	-1,36E+02
WDP (disc.2)	m3 World eq.	4,99E-01	7,59E-02	9,31E-01	1,51E+00	MND	MNR	0,00E+00	1,65E-02	9,63E-01	0,00E+00	-3,16E-01
Acronyms	GWP-total – Climate change, total global warming potential; GWP-fossil – Climate change, fossil fuels; GWP-biogenic – Climate change, biogenic carbon; GWP-luluc – Climate change, land use and land use change; ODP – Ozone layer depletion; AP – Acidification of terrestrial and freshwater environments; EP-freshwater – Eutrophication, freshwater; EP-marine – Eutrophication, marine; EP-terrestrial – Eutrophication, terrestrial; POCP – Photochemical ozone formation (smog formation); ADPE – Abiotic depletion, minerals and metals; ADPF – Abiotic depletion, fossil fuels; WDP – Water scarcity (water use deprivation potential); NCV – net calorific value.											
Disclaimer 2	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.											

ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
PM	Disease Incidence	9,33E-08	7,23E-08	1,60E-07	3,25E-07	MND	MNR	0,00E+00	1,38E-08	2,52E-08	0,00E+00	-4,26E-08
IRP (disc.1)	kBq U235 eq.	1,45E-01	1,86E-02	1,43E-01	3,07E-01	MND	MNR	0,00E+00	4,47E-03	2,25E-03	0,00E+00	-1,37E-01
ETP-fw (disc.2)	CTUe	9,41E+00	7,03E+00	1,32E+01	2,96E+01	MND	MNR	0,00E+00	1,63E+00	1,64E+00	0,00E+00	-6,80E+00
HTP-c (disc.2)	CTUh	1,82E-09	4,22E-10	1,55E-09	3,79E-09	MND	MNR	0,00E+00	1,04E-10	6,00E-10	0,00E+00	-2,10E-09
HTP-nc (disc.2)	CTUh	1,07E-08	9,02E-09	5,38E-08	7,35E-08	MND	MNR	0,00E+00	2,04E-09	2,83E-08	0,00E+00	-1,68E-08
SQP (disc.2)	Dimensionless	1,92E+03	1,48E+01	1,03E+01	1,94E+03	MND	MNR	0,00E+00	2,00E+00	5,34E-01	0,00E+00	-3,15E+00
Acronyms	PM – Particulate matter emissions (potential incidence of disease); IRP – Ionising radiation, human health exposure potential; ETP-fw – Ecotoxicity, freshwater; HTP-c – Human toxicity, cancer effects; HTP-nc – Human toxicity, non-cancer effects; SQP – Land use related impacts, soil quality.											
Disclaimer 1	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.											
Disclaimer 2	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.											

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
PERE	MJ, (NCV)	3,80E+02	2,15E-01	4,41E+00	3,84E+02	MND	MNR	0,00E+00	5,19E-02	4,69E-02	0,00E+00	-1,30E+00
PERM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ, (NCV)	3,80E+02	2,15E-01	4,41E+00	3,84E+02	MND	MNR	0,00E+00	5,19E-02	4,69E-02	0,00E+00	-1,30E+00
PENRE	MJ, (NCV)	2,34E+01	1,48E+01	4,84E+01	8,66E+01	MND	MNR	0,00E+00	3,33E+00	1,92E+00	0,00E+00	-1,36E+02
PENRM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ, (NCV)	2,34E+01	1,48E+01	4,84E+01	8,66E+01	MND	MNR	0,00E+00	3,33E+00	1,92E+00	0,00E+00	-1,36E+02
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	1,76E-02	2,59E-03	1,29E-01	1,49E-01	MND	MNR	0,00E+00	5,50E-04	4,66E-03	0,00E+00	-1,03E-02
Acronyms	PERE – Use of renewable primary energy as energy carriers; PERM – Use of renewable primary energy resources as raw materials; PERT – Total use of renewable primary energy resources (PERE + PERM); PENRE – Use of non-renewable primary energy as energy carriers; PENRM – Use of non-renewable primary energy resources as raw materials; PENRT – Total use of non-renewable primary energy resources (PENRE + PENRM); SM – Use of secondary material; RSF – Use of renewable secondary fuels; NRSF – Use of non-renewable secondary fuels; FW – Net use of fresh water; NCV – net calorific value.											

OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	1,26E+01	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	1,19E+02	0,00E+00	0,00E+00
Acronyms	CRU – Components for re-use; MFR – Materials for recycling; MER – Materials for energy recovery; EEE – Exported electrical energy; EET – Exported thermal energy.											

WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
HWD	kg	1,10E-04	9,12E-05	3,51E-05	2,36E-04	MND	MNR	0,00E+00	2,10E-05	9,47E-06	0,00E+00	-5,70E-04
NHWD	kg	7,38E-02	3,50E-04	7,60E-04	7,49E-02	MND	MNR	0,00E+00	9,37E-05	1,80E-04	0,00E+00	-2,13E-03
RWD	kg	3,70E-05	4,49E-06	3,50E-05	7,65E-05	MND	MNR	0,00E+00	1,09E-06	5,58E-07	0,00E+00	-3,48E-05
Acronyms	HWD – Hazardous waste disposed; NHWD – Non-hazardous waste disposed; RWD – Radioactive waste disposed.											

ENVIRONMENTAL IMPACT DATA – Industrial Parquet HKL 23 mm Stabilo

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
GWP-Total	kg CO2 eq.	-2,82E+01	1,23E+00	7,87E+00	-1,91E+01	MND	MNR	0,00E+00	2,97E-01	2,73E+01	0,00E+00	-1,17E+01
GWP-fossil	kg CO2 eq.	1,55E+00	1,23E+00	5,38E+00	8,15E+00	MND	MNR	0,00E+00	2,97E-01	2,79E-01	0,00E+00	-1,17E+01
GWP-biogenic	kg CO2 eq.	-2,98E+01	9,80E-04	2,49E+00	-2,73E+01	MND	MNR	0,00E+00	2,70E-04	2,70E+01	0,00E+00	-7,65E-03
GWP-LULUC	kg CO2 eq.	2,90E-02	6,00E-04	1,72E-03	3,13E-02	MND	MNR	0,00E+00	1,50E-04	7,50E-05	0,00E+00	-1,77E-03
ODP	kg CFC-11 eq.	2,97E-08	2,79E-08	2,64E-08	8,39E-08	MND	MNR	0,00E+00	6,46E-09	4,89E-09	0,00E+00	-5,13E-07
AP	mol H+ eq.	8,09E-03	3,04E-03	4,08E-02	5,19E-02	MND	MNR	0,00E+00	6,50E-04	2,98E-03	0,00E+00	-9,58E-03
EP-freshwater	kg P eq.	7,30E-04	9,08E-05	6,21E-03	7,03E-03	MND	MNR	0,00E+00	2,11E-05	1,30E-04	0,00E+00	-4,20E-04
EP-marine	kg N eq.	2,80E-03	8,30E-04	7,11E-03	1,07E-02	MND	MNR	0,00E+00	1,60E-04	1,59E-03	0,00E+00	-2,94E-03
EP-terrestrial	mol N eq.	2,85E-02	8,48E-03	6,58E-02	1,03E-01	MND	MNR	0,00E+00	1,66E-03	1,53E-02	0,00E+00	-3,16E-02
POCP	kg NMVOC eq.	1,61E-02	4,96E-03	1,83E-02	3,94E-02	MND	MNR	0,00E+00	1,01E-03	3,88E-03	0,00E+00	-2,03E-02
ADPE (disc.2)	kg Sb eq.	3,08E-06	2,39E-06	2,07E-06	7,54E-06	MND	MNR	0,00E+00	6,90E-07	3,56E-07	0,00E+00	-4,88E-06
ADPF (disc.2)	MJ, (NCV)	2,65E+01	1,88E+01	6,14E+01	1,07E+02	MND	MNR	0,00E+00	4,25E+00	2,45E+00	0,00E+00	-1,74E+02
WDP (disc.2)	m3 World eq.	5,43E-01	9,65E-02	1,18E+00	1,82E+00	MND	MNR	0,00E+00	2,11E-02	1,23E+00	0,00E+00	-4,04E-01
Acronyms	GWP-total – Climate change, total global warming potential; GWP-fossil – Climate change, fossil fuels; GWP-biogenic – Climate change, biogenic carbon; GWP-luluc – Climate change, land use and land use change; ODP – Ozone layer depletion; AP – Acidification of terrestrial and freshwater environments; EP-freshwater – Eutrophication, freshwater; EP-marine – Eutrophication, marine; EP-terrestrial – Eutrophication, terrestrial; POCP – Photochemical ozone formation (smog formation); ADPE – Abiotic depletion, minerals and metals; ADPF – Abiotic depletion, fossil fuels; WDP – Water scarcity (water use deprivation potential); NCV – net calorific value.											
Disclaimer 2	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.											

ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
PM	Disease Incidence	1,12E-07	9,21E-08	2,02E-07	4,06E-07	MND	MNR	0,00E+00	1,77E-08	3,22E-08	0,00E+00	-5,45E-08
IRP (disc.1)	kBq U235 eq.	1,72E-01	2,36E-02	1,81E-01	3,77E-01	MND	MNR	0,00E+00	5,71E-03	2,87E-03	0,00E+00	-1,75E-01
ETP-fw (disc.2)	CTUe	1,14E+01	8,94E+00	1,65E+01	3,68E+01	MND	MNR	0,00E+00	2,08E+00	2,10E+00	0,00E+00	-8,69E+00
HTP-c (disc.2)	CTUh	2,06E-09	5,37E-10	1,93E-09	4,52E-09	MND	MNR	0,00E+00	1,33E-10	7,66E-10	0,00E+00	-2,68E-09
HTP-nc (disc.2)	CTUh	1,27E-08	1,15E-08	6,69E-08	9,10E-08	MND	MNR	0,00E+00	2,60E-09	3,62E-08	0,00E+00	-2,14E-08
SQP (disc.2)	Dimensionless	2,43E+03	1,88E+01	1,31E+01	2,47E+03	MND	MNR	0,00E+00	2,55E+00	6,83E-01	0,00E+00	-4,02E+00
Acronyms	PM – Particulate matter emissions (potential incidence of disease); IRP – Ionising radiation, human health exposure potential; ETP-fw – Ecotoxicity, freshwater; HTP-c – Human toxicity, cancer effects; HTP-nc – Human toxicity, non-cancer effects; SQP – Land use related impacts, soil quality.											
Disclaimer 1	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.											
Disclaimer 2	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.											

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
PERE	MJ, (NCV)	4,82E+02	2,74E-01	5,60E+00	4,88E+02	MND	MNR	0,00E+00	6,63E-02	5,99E-02	0,00E+00	-1,66E+00
PERM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ, (NCV)	4,82E+02	2,74E-01	5,60E+00	4,88E+02	MND	MNR	0,00E+00	6,63E-02	5,99E-02	0,00E+00	-1,66E+00
PENRE	MJ, (NCV)	2,66E+01	1,88E+01	6,14E+01	1,07E+02	MND	MNR	0,00E+00	4,25E+00	2,45E+00	0,00E+00	-1,74E+02
PENRM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ, (NCV)	2,66E+01	1,88E+01	6,14E+01	1,07E+02	MND	MNR	0,00E+00	4,25E+00	2,45E+00	0,00E+00	-1,74E+02
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	1,89E-02	3,30E-03	1,63E-01	1,86E-01	MND	MNR	0,00E+00	7,00E-04	5,96E-03	0,00E+00	-1,31E-02
Acronyms	PERE – Use of renewable primary energy as energy carriers; PERM – Use of renewable primary energy resources as raw materials; PERT – Total use of renewable primary energy resources (PERE + PERM); PENRE – Use of non-renewable primary energy as energy carriers; PENRM – Use of non-renewable primary energy resources as raw materials; PENRT – Total use of non-renewable primary energy resources (PENRE + PENRM); SM – Use of secondary material; RSF – Use of renewable secondary fuels; NRSF – Use of non-renewable secondary fuels; FW – Net use of fresh water; NCV – net calorific value.											

OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	1,60E+01	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	1,52E+02	0,00E+00	0,00E+00
Acronyms	CRU – Components for re-use; MFR – Materials for recycling; MER – Materials for energy recovery; EEE – Exported electrical energy; EET – Exported thermal energy.											

WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
HWD	kg	1,30E-04	1,20E-04	4,43E-05	2,94E-04	MND	MNR	0,00E+00	2,69E-05	1,21E-05	0,00E+00	-7,30E-04
NHWD	kg	9,34E-02	4,40E-04	9,70E-04	9,48E-02	MND	MNR	0,00E+00	1,20E-04	2,40E-04	0,00E+00	-2,72E-03
RWD	kg	4,38E-05	5,70E-06	4,45E-05	9,40E-05	MND	MNR	0,00E+00	1,39E-06	7,13E-07	0,00E+00	-4,45E-05
Acronyms	HWD – Hazardous waste disposed; NHWD – Non-hazardous waste disposed; RWD – Radioactive waste disposed.											

ENVIRONMENTAL IMPACT DATA – End Grain Mosaic (Hirnholz) 18 mm

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
GWP-Total	kg CO2 eq.	-2,21E+01	9,68E-01	6,22E+00	-1,50E+01	MND	MNR	0,00E+00	2,33E-01	2,13E+01	0,00E+00	-9,15E+00
GWP-fossil	kg CO2 eq.	1,42E+00	9,67E-01	4,26E+00	6,64E+00	MND	MNR	0,00E+00	2,33E-01	2,19E-01	0,00E+00	-9,15E+00
GWP-biogenic	kg CO2 eq.	-2,36E+01	7,70E-04	1,96E+00	-2,16E+01	MND	MNR	0,00E+00	2,10E-04	2,11E+01	0,00E+00	-5,99E-03
GWP-LULUC	kg CO2 eq.	2,32E-02	4,70E-04	1,36E-03	2,51E-02	MND	MNR	0,00E+00	1,10E-04	5,87E-05	0,00E+00	-1,38E-03
ODP	kg CFC-11 eq.	2,53E-08	2,19E-08	2,08E-08	6,81E-08	MND	MNR	0,00E+00	5,06E-09	3,83E-09	0,00E+00	-4,01E-07
AP	mol H+ eq.	7,11E-03	2,39E-03	3,22E-02	4,17E-02	MND	MNR	0,00E+00	5,10E-04	2,33E-03	0,00E+00	-7,49E-03
EP-freshwater	kg P eq.	6,10E-04	7,15E-05	4,90E-03	5,58E-03	MND	MNR	0,00E+00	1,65E-05	9,80E-05	0,00E+00	-3,30E-04
EP-marine	kg N eq.	2,42E-03	6,50E-04	5,64E-03	8,71E-03	MND	MNR	0,00E+00	1,30E-04	1,24E-03	0,00E+00	-2,30E-03
EP-terrestrial	mol N eq.	2,45E-02	6,67E-03	5,18E-02	8,30E-02	MND	MNR	0,00E+00	1,30E-03	1,19E-02	0,00E+00	-2,47E-02
POCP	kg NMVOC eq.	1,36E-02	3,90E-03	1,44E-02	3,19E-02	MND	MNR	0,00E+00	7,90E-04	3,04E-03	0,00E+00	-1,59E-02
ADPE (disc.2)	kg Sb eq.	2,85E-06	1,88E-06	1,63E-06	6,36E-06	MND	MNR	0,00E+00	5,41E-07	2,78E-07	0,00E+00	-3,82E-06
ADPF (disc.2)	MJ, (NCV)	2,66E+01	1,48E+01	4,84E+01	8,97E+01	MND	MNR	0,00E+00	3,33E+00	1,92E+00	0,00E+00	-1,36E+02
WDP (disc.2)	m3 World eq.	5,46E-01	7,60E-02	9,31E-01	1,55E+00	MND	MNR	0,00E+00	1,65E-02	9,63E-01	0,00E+00	-3,16E-01
Acronyms	GWP-total – Climate change, total global warming potential; GWP-fossil – Climate change, fossil fuels; GWP-biogenic – Climate change, biogenic carbon; GWP-luluc – Climate change, land use and land use change; ODP – Ozone layer depletion; AP – Acidification of terrestrial and freshwater environments; EP-freshwater – Eutrophication, freshwater; EP-marine – Eutrophication, marine; EP-terrestrial – Eutrophication, terrestrial; POCP – Photochemical ozone formation (smog formation); ADPE – Abiotic depletion, minerals and metals; ADPF – Abiotic depletion, fossil fuels; WDP – Water scarcity (water use deprivation potential); NCV - net calorific value.											
Disclaimer 2	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.											

ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
PM	Disease Incidence	9,79E-08	7,24E-08	1,61E-07	3,31E-07	MND	MNR	0,00E+00	1,39E-08	2,52E-08	0,00E+00	-4,26E-08
IRP (disc.1)	kBq U235 eq.	1,50E-01	1,86E-02	1,43E-01	3,11E-01	MND	MNR	0,00E+00	4,47E-03	2,25E-03	0,00E+00	-1,37E-01
ETP-fw (disc.2)	CTUe	9,67E+00	7,04E+00	1,33E+01	3,00E+01	MND	MNR	0,00E+00	1,63E+00	1,64E+00	0,00E+00	-6,80E+00
HTP-c (disc.2)	CTUh	1,97E-09	4,23E-10	1,57E-09	3,96E-09	MND	MNR	0,00E+00	1,04E-10	6,00E-10	0,00E+00	-2,10E-09
HTP-nc (disc.2)	CTUh	1,12E-08	9,03E-09	5,44E-08	7,47E-08	MND	MNR	0,00E+00	2,04E-09	2,83E-08	0,00E+00	-1,68E-08
SQP (disc.2)	Dimensionless	1,93E+03	1,48E+01	1,03E+01	1,95E+03	MND	MNR	0,00E+00	2,00E+00	5,34E-01	0,00E+00	-3,15E+00
Acronyms	PM – Particulate matter emissions (potential incidence of disease); IRP – Ionising radiation, human health exposure potential; ETP-fw – Ecotoxicity, freshwater; HTP-c – Human toxicity, cancer effects; HTP-nc – Human toxicity, non-cancer effects; SQP – Land use related impacts, soil quality.											
Disclaimer 1	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.											
Disclaimer 2	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.											

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
PERE	MJ, (NCV)	3,81E+02	2,16E-01	4,41E+00	3,86E+02	MND	MNR	0,00E+00	5,19E-02	4,69E-02	0,00E+00	-1,30E+00
PERM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ, (NCV)	3,81E+02	2,16E-01	4,41E+00	3,86E+02	MND	MNR	0,00E+00	5,19E-02	4,69E-02	0,00E+00	-1,30E+00
PENRE	MJ, (NCV)	2,66E+01	1,48E+01	4,84E+01	8,97E+01	MND	MNR	0,00E+00	3,33E+00	1,92E+00	0,00E+00	-1,36E+02
PENRM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ, (NCV)	2,66E+01	1,48E+01	4,84E+01	8,97E+01	MND	MNR	0,00E+00	3,33E+00	1,92E+00	0,00E+00	-1,36E+02
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	1,96E-02	2,60E-03	1,29E-01	1,51E-01	MND	MNR	0,00E+00	5,50E-04	4,66E-03	0,00E+00	-1,03E-02
Acronyms	PERE – Use of renewable primary energy as energy carriers; PERM – Use of renewable primary energy resources as raw materials; PERT – Total use of renewable primary energy resources (PERE + PERM); PENRE – Use of non-renewable primary energy as energy carriers; PENRM – Use of non-renewable primary energy resources as raw materials; PENRT – Total use of non-renewable primary energy resources (PENRE + PENRM); SM – Use of secondary material; RSF – Use of renewable secondary fuels; NRSF – Use of non-renewable secondary fuels; FW – Net use of fresh water; NCV – net calorific value.											

OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	1,26E+01	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MNR	0,00E+00	0,00E+00	1,19E+02	0,00E+00	0,00E+00
Acronyms	CRU – Components for re-use; MFR – Materials for recycling; MER – Materials for energy recovery; EEE – Exported electrical energy; EET – Exported thermal energy.											

WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
HWD	kg	1,10E-04	9,13E-05	3,51E-05	2,36E-04	MND	MNR	0,00E+00	2,11E-05	9,47E-06	0,00E+00	-5,70E-04
NHWD	kg	7,38E-02	3,50E-04	7,60E-04	7,49E-02	MND	MNR	0,00E+00	9,37E-05	1,80E-04	0,00E+00	-2,13E-03
RWD	kg	3,82E-05	4,50E-06	3,50E-05	7,77E-05	MND	MNR	0,00E+00	1,09E-06	5,58E-07	0,00E+00	-3,48E-05
Acronyms	HWD – Hazardous waste disposed; NHWD – Non-hazardous waste disposed; RWD – Radioactive waste disposed.											

SCENARIO DOCUMENTATION

Manufacturing energy scenario documentation

Scenario parameter	Value
Source and quality of electricity data	Electricity used in module A3 is based on the ecoinvent 3.9.1 dataset for the Polish electricity mix. For climate change modelling, the default GWP factor was replaced with a national electricity factor based on KOBiZE 2024 operational emission data and extended to include upstream emissions (fuel supply, methane emissions from coal extraction and infrastructure-related contributions).
Electricity CO ₂ / kWh	0,599 kg CO ₂ e / kWh

End of life scenario

Scenario parameter	Value
Collection process — % collected separately	100%
Recovery process — % for energy recovery	100%
Transport to incineration facility	100 km, heavy-duty truck

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EPD VERIFICATION:

The verification procedure of this Environmental Product Declaration (EPD) was carried out in accordance with ISO 14025. The EPD is valid for five years from the date of publication and may be updated earlier in case of significant changes. Renewal of validity requires review and, if necessary, updating.

EPD CONTRIBUTORS

Manufacturer representative	Henryk Michalski, Managing Director
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EPD verifier	Izabela Sztamberek-Sochan, Ph.D.
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Note: The sole ownership and liability of this declaration are with the owner. Construction product declarations may not be comparable if they do not comply with EN 15804. For detailed information on comparability, please refer to EN 15804 and ISO 14025.



CERTIFICATE

TYPE III EPD DECLARATION

(ENVIRONMENTAL PRODUCT DECLARATION)

Reg. No. EPD-P 01.06.2026



This document confirms that the Environmental Product Declaration developed by **Bembe Polska Sp. z o.o.**

for

Solid Oak Flooring

manufactured in accordance with standards:

EN 13488, EN 14761 and EN 14342,

meets the requirements of standards **EN 15804:2012+A2:2019, EN 16485:2014** and **ISO 14025**, and that the data contained therein has been prepared correctly.

The Declaration was published on June 15, 2026 and is valid until June 15, 2031 or until it is deregistered or its publication on the website www.epd.org.pl is discontinued.



Authenticity of this certificate can be confirmed in the public register at www.epd.org.pl

Izabela Sztamberek-Sochan, Ph.D.
EPD Polska Verifier



Grzegorz Suwara
CEO Multicert Sp. z o.o.

Warsaw, June 15, 2026