

# ENVIRONMENTAL PRODUCT DECLARATION

# EPD

IN ACCORDANCE WITH EN 15804+A2, EN 16485:2014 & ISO 14025



**Product name:**

**Double and Triple Layered  
Parquet Flooring**

**Producer:  
Holzexport Sp. z o.o.**



Issued on 30 September 2025  
Valid until 30 September 2030

# GENERAL INFORMATION

## EPD OWNER

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Manufacturer / EPD Holder	Holzexport Sp. z o.o.
Company Address	ul. Ks. P. Ściegiennego 256, 25-116, Kielce
Contact details	e-mail: <a href="mailto:biuro@holzexport.pl">biuro@holzexport.pl</a> phone: <a href="tel:+48413489800">+48 (41)3489-800</a>
Website	<a href="https://holzexport.pl/">https://holzexport.pl/</a>

## PRODUCT IDENTIFICATION

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Product name	<ol style="list-style-type: none"><li>1. Double Layered Oiled/Unfinished Parquet Flooring</li><li>2. Double Layered Lacquered Parquet Flooring</li><li>3. Triple Layered Oiled/Unfinished Parquet Flooring</li><li>4. Triple Layered Lacquered Parquet Flooring</li></ol>
Place(s) of production	Kielce, Poland

## EPD INFORMATION

EPDs of construction products may not be comparable if they do not comply with EN 15804+A2 and if they are not compared in a building context.

EPD Polska program operator	Multicert Sp. z o.o. Ul. Mydlarska 47, 04-690 Warszawa, Poland <a href="http://www.epd.org.pl">www.epd.org.pl</a> , <a href="mailto:epd@epd.org.pl">epd@epd.org.pl</a>
EPD standards	This EPD is in accordance with EN 15804+A2, and ISO 14025 standards. The EPD also complies with EN 16485:2014, which provides complementary PCR for wood and wood-based products.
Product category rules	The CEN standard EN 15804+A2 serves as the core PCR complemented by EN 16485:2014.
EPD verification	Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal certification <input checked="" type="checkbox"/> External verification
EPD verifier	Izabela Sztamberek-Sochan, Ph.D.
EPD number	EPD-P 05.09.2025
Registration	EPD Polska <a href="http://www.epd.org.pl">www.epd.org.pl</a>
Publishing date	30 September 2025
EPD valid until	30 September 2030
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.

# COMPANY INFORMATION

## HOLDER OF THE EPD

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Holzexport Sp. z o.o.  
ul. Ks. P. Ściegiennego 256, 25-116, Kielce

## FACTORY PLANT / MANUFACTURER

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Holzexport Sp. z o.o.  
ul. Ks. P. Ściegiennego 256, 25-116, Kielce

## COMPANY PROFILE

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Holzexport Sp. z o.o. is a family-owned Polish manufacturer of high-quality two- and three-layer parquet flooring, established in 1992. Building on decades of wood processing expertise, the company combines craftsmanship with modern technologies to deliver durable and aesthetically refined engineered flooring. With strong production capacity and a worldwide sales network, Holzexport supplies customers across global markets.

The product portfolio includes a wide range of engineered parquet solutions with lacquered or oiled finishes, available in multiple formats, thicknesses, and surface structures. Advanced finishing technologies ensure long-term durability, dimensional stability, and compliance with European standards. Floors are manufactured exclusively from legally sourced, FSC®-certified timber, primarily oak and spruce, supplied from responsibly managed forests.

Sustainability and environmental stewardship are at the core of the company's operations. Natural resources are used efficiently, production by-products are recycled internally, and environmentally responsible surface treatments are applied. By delivering durable wood floors, Holzexport contributes both to healthy indoor environments and to long-term storage of biogenic carbon in buildings.

# PRODUCT INFORMATION

## PRODUCT DESCRIPTION

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The parquet flooring manufactured by Holzexport is an engineered wood product designed to combine the natural beauty of oak with the stability of layered construction.

- Two-layer parquet (11 mm and 14 mm):  
These boards consist of a top wear layer of solid oak (3–6 mm) bonded to a bottom layer of spruce, providing strength, elasticity, and stability.
- Three-layer parquet (14 mm):  
In addition to the oak wear layer and the spruce core, these boards include a spruce veneer backing layer, which further balances internal stresses and improves dimensional stability.

All products are equipped with tongue-and-groove connections made of plywood, which ensures precise fitting, high mechanical resistance of the locking system, and long-term durability of the joints.

The surface is factory-finished in two options:

- Lacquered: multi-layer system of primers, base coats, and top coats, UV-cured for hardness, wear resistance, and chemical durability.



- Oiled/unfinished: surface treated with hybrid oils and waxes (UV-cured) or delivered raw, emphasizing natural appearance, moisture regulation, and easier local renovation.

The layered design results in low thermal resistance, making the flooring highly suitable for use with underfloor heating systems. The oak top layer is thick enough to allow sanding and refinishing, significantly extending the service life.

## PRODUCT GROUPS COVERED BY THE EPD

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Id.	Name	Construction	Total thickness [mm]
1	2-layer parquet, oiled/unfinished	Oak wear layer + spruce base	11
2	2-layer parquet, lacquered	Oak wear layer + spruce base	11
3	3-layer parquet, oiled/unfinished	Oak wear layer + spruce core + spruce veneer backing	14
4	3-layer parquet, lacquered	Oak wear layer + spruce core + spruce veneer backing	14

## REPRESENTATIVITY OF RESULTS

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The declared unit is 1 m<sup>2</sup> of installed parquet flooring. Representative products were chosen for each thickness (11 and 14 mm) and finishing type (lacquered, oiled/unfinished). Environmental indicators for other variants can be interpolated proportionally using the declared thickness.

## PRODUCT APPLICATION

Holzexport parquet flooring is designed for indoor use in residential, commercial, and public buildings. The flooring is suitable for areas such as living rooms, bedrooms, corridors, offices, and meeting spaces, where durable, stable, and easy-to-maintain flooring is required.

Key features of the products include:

- Dimensional stability thanks to multi-layer construction with oak, spruce, and plywood elements.
- Compatibility with underfloor heating systems due to low thermal resistance.
- Surface performance adapted to user needs: lacquered surfaces offer high abrasion resistance and chemical protection, while oiled/unfinished versions emphasize natural aesthetics and allow local renovation.
- Long service life through the possibility of sanding and refinishing the oak wear layer.

Installation is carried out by gluing the parquet to a suitable subfloor (cement or anhydrite screed, or wooden panels). Proper subfloor preparation, control of humidity and temperature, and the use of recommended adhesives are essential for optimal performance. Maintenance consists of routine cleaning and periodic renewal of the finish (re-oiling or recoating).

## PRODUCT RAW MATERIAL COMPOSITION

Product (name)	2-layer parquet (11 mm), lacquered	2-layer parquet (11 mm), oiled/unfinished	3-layer parquet (14 mm), lacquered	3-layer parquet (14 mm), oiled/unfinished
Oak	39%	39%	37%	37%
Spruce	56%	57%	52%	53%
Spruce veneer	0%	0%	7%	7%
Plywood	2%	2%	2%	2%
Other materials (Adhesives,Laquer,Oil)	3%	2%	2%	1%

## REFERENCE STANDARDS

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The products covered by this Environmental Product Declaration are manufactured in accordance with the following standards:

**EN 13489:2023**

*Wood flooring and parquet – Multi-layer parquet elements*

**EN 14342:2013+A1:2018**

Wood flooring and parquet – Characteristics, evaluation of conformity and marking

## SUBSTANCES, REACH - VERY HIGH CONCERN

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The product does not contain any REACH SVHC substances in amounts greater than 0,1% (1000 ppm).

# PRODUCT LIFE-CYCLE

## MANUFACTURING AND PACKAGING (A1-A3)

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The declared parquet flooring is manufactured as an engineered wood product consisting of oak wear layers combined with softwood and plywood components. Production begins with the preparation of sawn timber supplied as lumber, boards, or friezes. Depending on its condition on delivery, the wood is either kiln-dried to the required moisture level or processed directly if already dried. The material is then cut, planed, and sorted to achieve the necessary quality before entering assembly.

During the parquet assembly stage, the individual layers are bonded together using adhesives under pressure, ensuring strength and dimensional stability. In multilayer products, a tongue-and-groove system is applied: tongues made from plywood are glued onto the boards to provide a precise fit and durable joint. This stage is central to achieving both the mechanical performance and the usability of the finished parquet flooring.

The finishing stage involves sanding, filling with wood filler, profiling, and the application of surface treatments such as oil or lacquer.

Once completed, the products are banded with cardboard and wrapped in shrink film, then stacked on pallets and secured with PET straps to ensure safe handling, storage, and transport.

The declared unit includes all wood-based elements, adhesives, fillers, and coatings. The system boundaries for modules A1–A3 cover the supply and processing of raw and auxiliary materials, the main production operations, and packaging of the finished product. Electricity demand is fully covered by the national grid. Process heat for drying and further processing is provided partly through the combustion of sawdust generated in production, while the remaining sawdust is processed into wood pellets, which are considered a co-product of the system.

## TRANSPORT TO SITE (A4)

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Following manufacturing and packaging, the finished parquet flooring is delivered to the place of use by road transport. Based on transport data provided by the client, an average distance of approximately 1000 km by heavy-duty truck has been assumed. The transport stage accounts for fuel consumption, emissions from vehicle operation, and loading/unloading activities. This scenario reflects the typical distribution conditions for the declared product within the European market.

## PRODUCT END OF LIFE (C1,C2,C3,C4,D)

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At the end-of-life, it is assumed that 100% of the 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 parquet 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 (Environmental Product Declarations – Product category rules for wood and wood-based products), 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%.

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	2024 year
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## DECLARED AND FUNCTIONAL UNIT

Declared unit	1 m <sup>2</sup> of finished parquet flooring, including all wood components, adhesives, fillers and surface treatments (oil or lacquer).
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## BIOGENIC CARBON CONTENT

Id.	Name	Net *	Gross**
1	2-layer parquet, oiled/unfinished	2,73	5,15
2	2-layer parquet, lacquered	2,70	5,09
3	3-layer parquet, oiled/unfinished	3,44	7,40
4	3-layer parquet, lacquered	3,41	7,33

\* The net amount represents amount of biogenic carbon contained in 1 DU of the product.

\*\* The gross amount represents the amount of biogenic carbon contained in wood used for producing 1 DU of the product including biogenic carbon released from biomass in course of production. All amounts are expressed in kg/1m<sup>2</sup> of products.

## SYSTEM BOUNDARY

The scope of the EPD is "cradle to gate" with options, including modules A1–A4, C1–C4, and D. The modules A1 (Raw material supply), A2 (Transport) and A3 (Manufacturing), A4 (Transport to construction site), C1 (Deconstruction /Demolition) C2 (Waste Transport), C3 (Waste Processing), C4 (Waste Disposal) and D are included in the study. Modules A5 (Installation in the building) and B (Use stage) are not declared (MND), as this EPD covers the product stage (A1–A3), part of Assembly stage (A4) and end-of-life stages (C1–C4, D). Installation scenarios vary significantly depending on project conditions and are therefore outside the declared scope.

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	X	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstr./demo	Transport	Waste processing	Disposal	Reuse Recovery Recycling

Modules not declared = MND. Modules not relevant = MNR.

## CUT-OFF CRITERIA

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The study does not exclude any modules or processes which are stated mandatory in the EN 15804:2012+A2. The study does not exclude any hazardous materials or substances.

The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes which data are available for are included in the calculation. There is no neglected unit process more than 1% of total mass and energy flows. The total neglected input and output flows do also not exceed 5% of energy usage or mass.

The production of capital equipment, construction activities, and infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy, and water use related to company management and sales activities are excluded.

## ALLOCATION

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The allocation is carried out in accordance with the provisions of EN 15804+A2. The information provided for the year 2024 includes all floors produced at facilities during that year. The allocation included the following data: water, electricity, heat from used biomass, waste, and packaging. For the listed inputs and outputs, the data was compiled by the manufacturer collectively for the entire factory. Due to the similarity in the production processes of other products, a mass allocation approach was used to inventory data for individual products.

## DATA QUALITY

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For foreground data, the LCA study relies on high-quality primary data gathered by Holzexport Sp. z o.o.. All relevant background data sets have been sourced from the OpenLCA software's database ecoinvent v 3.9.1.

## GEOGRAPHIC REPRESENTATIVENESS

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The product system covered by this EPD is manufactured and managed in Poland, Europe.

## ESTIMATES AND ASSUMPTIONS

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This LCA study is conducted in accordance with all methodological considerations, such as performance, system boundaries, data quality, allocation procedures, and decision rules to evaluate inputs and outputs. All estimations and assumptions are given below:

- (A1-A3) All relevant data provided by the manufacturer have been included in the assessment. The average transport distances for each input material were calculated based on supplier locations and allocated to the declared unit. Electricity from the national grid is used to power the production processes, while process heat – particularly for wood drying – is obtained from the combustion of sawdust generated as a by-product of wood processing in course of parquet production.
- During the deconstruction stage (C1), 100% of the parquet flooring is assumed to be manually dismantled as separated waste, without any additional material or energy consumption in this phase. The removed material is transported an average distance of 100 km to a waste treatment facility (C2). It is assumed that the product is entirely incinerated.
- Since the incineration process is modelled with an overall efficiency above 60%, in line with the provisions of EN 16485:2014 (Environmental Product Declarations – Product category rules for wood and wood-based products), the associated impacts are reported in Module C3 as thermal energy recovery, rather than in Module C4.
- In Module D, environmental credits are accounted for the substitution of conventional heat and electricity production by energy recovered from incineration of waste wood and packaging materials.

## MANUFACTURING ENERGY SCENARIO DOCUMENTATION

Scenario parameter	Value
Electricity data source and quality	Electricity, medium voltage, production mix (Reference product: electricity, medium voltage), Poland, 2024
Electricity CO <sub>2</sub> e / kWh	0.701 kg CO <sub>2</sub> eq./ kWh

## END OF LIFE SCENARIO DOCUMENTATION

Scenario parameter	Value
Collection process – % collected separately	100
Collection process – % collected with mixed waste	-
Recovery process – % for re-use	-
% for recycling	-
% for final deposition	-
% for energy recovery	100
Scenario assumptions for transportation	End-of-life product is transported 100 km with Truck, Euro mix, 24.7t payload capacity

# ENVIRONMENTAL IMPACT DATA

## I) DOUBLE LAYERED OILED/UNFINISHED PARQUET FLOORING (DU = 1 m2) CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

Impact category	Unit	A1	A2	A3	A4	A5 B1-B7	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	-1,55E+01	1,24E+00	1,34E+01	1,11E+00	MND	0,00E+00	1,11E-01	9,44E+00	0,00E+00	-4,02E+00
GWP-fossil	kg CO2 eq.	2,13E+00	1,23E+00	4,92E+00	1,11E+00	MND	0,00E+00	1,11E-01	9,68E-02	0,00E+00	-4,02E+00
GWP-biogenic	kg CO2 eq.	-1,78E+01	1,12E-03	8,46E+00	1,02E-03	MND	0,00E+00	1,00E-04	9,35E+00	0,00E+00	-1,87E-03
GWP-luluc	kg CO2 eq.	1,27E-01	6,10E-04	1,91E-03	5,50E-04	MND	0,00E+00	5,47E-05	2,60E-05	0,00E+00	-5,50E-04
ODP	kg CFC-11 eq.	5,02E-08	2,69E-08	2,44E-08	2,41E-08	MND	0,00E+00	2,41E-09	1,69E-09	0,00E+00	-1,77E-07
AP	mol H+ eq.	1,39E-02	2,69E-03	4,58E-02	2,42E-03	MND	0,00E+00	2,40E-04	1,03E-03	0,00E+00	-2,94E-03
EP-freshwater	kg PO4 eq.	2,37E-03	8,83E-05	5,52E-03	7,88E-05	MND	0,00E+00	7,88E-06	4,34E-05	0,00E+00	-1,20E-04
EP-marine	kg N eq.	5,04E-03	6,80E-04	1,09E-02	6,10E-04	MND	0,00E+00	6,11E-05	5,50E-04	0,00E+00	-8,80E-04
EP-terrestrial	mol N eq.	4,73E-02	6,87E-03	1,10E-01	6,21E-03	MND	0,00E+00	6,20E-04	5,29E-03	0,00E+00	-9,41E-03
POCP	kg NMVOC eq.	1,93E-02	4,17E-03	2,89E-02	3,76E-03	MND	0,00E+00	3,80E-04	1,34E-03	0,00E+00	-6,62E-03
ADPE (disc.2)	kg Sb eq.	6,60E-06	2,92E-06	2,61E-06	2,58E-06	MND	0,00E+00	2,58E-07	1,23E-07	0,00E+00	-1,57E-06
ADPF (disc.2)	MJ, (NCV)	3,85E+01	1,76E+01	5,62E+01	1,59E+01	MND	0,00E+00	1,59E+00	8,49E-01	0,00E+00	-5,97E+01
WDP (disc.2)	m3 World eq.	1,76E+00	8,80E-02	1,21E+00	7,87E-02	MND	0,00E+00	7,87E-03	4,26E-01	0,00E+00	-1,27E-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 experienced with the indicator.										

MND abbreviation stands for Module Not Declared, MNR stands for Module Not Relevant

## ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A4	A5 B1-B7	C1	C2	C3	C4	D
PM	Disease Incidence	4,47E-07	7,23E-08	5,46E-07	6,60E-08	MND	0,00E+00	6,60E-09	1,12E-08	0,00E+00	-1,78E-08
IRP (disc.1)	kBq U235 eq.	3,62E-01	2,43E-02	1,84E-01	2,13E-02	MND	0,00E+00	2,13E-03	1,00E-03	0,00E+00	-4,60E-02
ETP-fw (disc.2)	CTUe	4,09E+01	8,67E+00	1,66E+01	7,76E+00	MND	0,00E+00	7,76E-01	7,26E-01	0,00E+00	-2,91E+00
HTP-c (disc.2)	CTUh	7,00E-09	5,53E-10	2,34E-09	4,96E-10	MND	0,00E+00	4,96E-11	2,65E-10	0,00E+00	-7,20E-10
HTP-nc (disc.2)	CTUh	2,61E-08	1,08E-08	7,31E-08	9,72E-09	MND	0,00E+00	9,72E-10	1,25E-08	0,00E+00	-7,08E-09
SQP (disc.2)	Dimensionless	1,92E+03	1,04E+01	1,26E+01	9,52E+00	MND	0,00E+00	9,52E-01	2,37E-01	0,00E+00	-1,29E+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 experienced with the indicator.										

## USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A4	A5 B1-B7	C1	C2	C3	C4	D
PERE	MJ, (NCV)	3,68E+02	2,81E-01	5,23E+00	2,47E-01	MND	0,00E+00	2,48E-02	2,08E-02	0,00E+00	-4,63E-01
PERM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ, (NCV)	3,68E+02	2,81E-01	5,23E+00	2,47E-01	MND	0,00E+00	2,48E-02	2,08E-02	0,00E+00	-4,63E-01
PENRE	MJ, (NCV)	3,86E+01	1,76E+01	5,62E+01	1,59E+01	MND	0,00E+00	1,59E+00	8,49E-01	0,00E+00	-5,97E+01
PENRM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ, (NCV)	3,86E+01	1,76E+01	5,62E+01	1,59E+01	MND	0,00E+00	1,59E+00	8,49E-01	0,00E+00	-5,97E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	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	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	5,02E-02	2,91E-03	1,41E-01	2,60E-03	MND	0,00E+00	2,60E-04	2,06E-03	0,00E+00	-4,08E-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.										

## END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	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	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	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	0,00E+00	0,00E+00	6,00E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	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	0,00E+00	0,00E+00	5,50E+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.										

## END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A4	A5 B1-B7	C1	C2	C3	C4	D
HWD	kg	2,00E-04	1,10E-04	5,01E-05	1,00E-04	MND	0,00E+00	1,00E-05	4,19E-06	0,00E+00	-2,50E-04
NHWD	kg	4,17E-01	5,00E-04	5,09E-03	4,50E-04	MND	0,00E+00	4,47E-05	8,18E-05	0,00E+00	-9,30E-04
RWD	kg	9,23E-05	5,91E-06	4,51E-05	5,18E-06	MND	0,00E+00	5,18E-07	2,47E-07	0,00E+00	-1,17E-05
Acronyms	HWD – Hazardous waste disposed; NHWD – Non-hazardous waste disposed; RWD – Radioactive waste disposed.										

## II) DOUBLE LAYERED LACQUERED PARQUET FLOORING (DU = 1 m<sup>2</sup>)

### CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

Impact category	Unit	A1	A2	A3	A4	A5 B1- B7	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	-1,53E+01	1,25E+00	1,32E+01	1,11E+00	MND	0,00E+00	1,11E-01	9,34E+00	0,00E+00	-3,97E+00
GWP-fossil	kg CO2 eq.	2,28E+00	1,25E+00	4,92E+00	1,11E+00	MND	0,00E+00	1,11E-01	9,57E-02	0,00E+00	-3,97E+00
GWP-biogenic	kg CO2 eq.	-1,76E+01	1,13E-03	8,32E+00	1,02E-03	MND	0,00E+00	1,00E-04	9,24E+00	0,00E+00	-1,85E-03
GWP-luluc	kg CO2 eq.	2,44E-02	6,20E-04	1,90E-03	5,50E-04	MND	0,00E+00	5,47E-05	2,57E-05	0,00E+00	-5,50E-04
ODP	kg CFC-11 eq.	5,39E-08	2,72E-08	2,43E-08	2,41E-08	MND	0,00E+00	2,41E-09	1,67E-09	0,00E+00	-1,75E-07
AP	mol H+ eq.	1,63E-02	2,72E-03	4,56E-02	2,42E-03	MND	0,00E+00	2,40E-04	1,02E-03	0,00E+00	-2,91E-03
EP-freshwater	kg PO4 eq.	1,10E-03	8,93E-05	5,52E-03	7,88E-05	MND	0,00E+00	7,88E-06	4,29E-05	0,00E+00	-1,20E-04
EP-marine	kg N eq.	4,62E-03	6,80E-04	1,08E-02	6,10E-04	MND	0,00E+00	6,11E-05	5,40E-04	0,00E+00	-8,70E-04
EP-terrestrial	mol N eq.	4,72E-02	6,94E-03	1,09E-01	6,21E-03	MND	0,00E+00	6,20E-04	5,23E-03	0,00E+00	-9,30E-03
POCP	kg NMVOC eq.	1,97E-02	4,21E-03	2,87E-02	3,76E-03	MND	0,00E+00	3,80E-04	1,33E-03	0,00E+00	-6,55E-03
ADPE (disc.2)	kg Sb eq.	7,57E-06	2,95E-06	2,59E-06	2,58E-06	MND	0,00E+00	2,58E-07	1,22E-07	0,00E+00	-1,56E-06
ADPF (disc.2)	MJ, (NCV)	4,16E+01	1,79E+01	5,61E+01	1,59E+01	MND	0,00E+00	1,59E+00	8,40E-01	0,00E+00	-5,90E+01
WDP (disc.2)	m <sup>3</sup> World eq.	1,63E+00	8,90E-02	1,20E+00	7,87E-02	MND	0,00E+00	7,87E-03	4,22E-01	0,00E+00	-1,26E-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 experienced with the indicator.										

## ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A4	A5 B1- B7	C1	C2	C3	C4	D
PM	Disease Incidence	4,50E-07	7,30E-08	5,38E-07	6,60E-08	MND	0,00E+00	6,60E-09	1,10E-08	0,00E+00	-1,76E-08
IRP (disc.1)	kBq U235 eq.	3,83E-01	2,47E-02	1,83E-01	2,13E-02	MND	0,00E+00	2,13E-03	9,80E-04	0,00E+00	-4,55E-02
ETP-fw (disc.2)	CTUe	3,32E+01	8,77E+00	1,65E+01	7,76E+00	MND	0,00E+00	7,76E-01	7,18E-01	0,00E+00	-2,88E+00
HTP-c (disc.2)	CTUh	7,01E-09	5,59E-10	2,32E-09	4,96E-10	MND	0,00E+00	4,96E-11	2,62E-10	0,00E+00	-7,12E-10
HTP-nc (disc.2)	CTUh	2,73E-08	1,09E-08	7,28E-08	9,72E-09	MND	0,00E+00	9,72E-10	1,24E-08	0,00E+00	-7,00E-09
SQP (disc.2)	Dimensionless	1,90E+03	1,05E+01	1,26E+01	9,52E+00	MND	0,00E+00	9,52E-01	2,34E-01	0,00E+00	-1,27E+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 experienced with the indicator.										

## USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A4	A5 B1- B7	C1	C2	C3	C4	D
PERE	MJ, (NCV)	3,63E+02	2,84E-01	5,22E+00	2,47E-01	MND	0,00E+00	2,48E-02	2,05E-02	0,00E+00	-4,57E-01
PERM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ, (NCV)	3,63E+02	2,84E-01	5,22E+00	2,47E-01	MND	0,00E+00	2,48E-02	2,05E-02	0,00E+00	-4,57E-01
PENRE	MJ, (NCV)	4,17E+01	1,79E+01	5,61E+01	1,59E+01	MND	0,00E+00	1,59E+00	8,40E-01	0,00E+00	-5,90E+01
PENRM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ, (NCV)	4,17E+01	1,79E+01	5,61E+01	1,59E+01	MND	0,00E+00	1,59E+00	8,40E-01	0,00E+00	-5,90E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	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	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	4,66E-02	2,95E-03	1,41E-01	2,60E-03	MND	0,00E+00	2,60E-04	2,04E-03	0,00E+00	-4,03E-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.										

## END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	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	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	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	0,00E+00	0,00E+00	5,72E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	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	0,00E+00	0,00E+00	5,43E+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.										

## END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A4	A5 B1- B7	C1	C2	C3	C4	D
HWD	kg	1,50E-04	1,10E-04	5,00E-05	1,00E-04	MND	0,00E+00	1,00E-05	4,14E-06	0,00E+00	-2,50E-04
NHWD	kg	7,78E-02	5,10E-04	5,09E-03	4,50E-04	MND	0,00E+00	4,47E-05	8,09E-05	0,00E+00	-9,20E-04
RWD	kg	9,77E-05	5,99E-06	4,50E-05	5,18E-06	MND	0,00E+00	5,18E-07	2,44E-07	0,00E+00	-1,15E-05
Acronyms	HWD – Hazardous waste disposed; NHWD – Non-hazardous waste disposed; RWD – Radioactive waste disposed.										

### III) TRIPLE LAYERED OILED/UNFINISHED PARQUET FLOORING (DU = 1 m<sup>2</sup>)

## CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

Impact category	Unit	A1	A2	A3	A4	A5 B1-B7	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	-2,25E+01	2,09E+00	2,06E+01	1,39E+00	MND	0,00E+00	1,39E-01	1,19E+01	0,00E+00	-5,06E+00
GWP-fossil	kg CO2 eq.	3,42E+00	2,09E+00	6,30E+00	1,39E+00	MND	0,00E+00	1,39E-01	1,22E-01	0,00E+00	-5,06E+00
GWP-biogenic	kg CO2 eq.	-2,60E+01	1,91E-03	1,43E+01	1,27E-03	MND	0,00E+00	1,30E-04	1,18E+01	0,00E+00	-2,35E-03
GWP-luluc	kg CO2 eq.	1,39E-01	1,03E-03	2,63E-03	6,80E-04	MND	0,00E+00	6,84E-05	3,27E-05	0,00E+00	-6,90E-04
ODP	kg CFC-11 eq.	8,18E-08	4,55E-08	3,15E-08	3,02E-08	MND	0,00E+00	3,02E-09	2,13E-09	0,00E+00	-2,23E-07
AP	mol H+ eq.	2,50E-02	4,56E-03	6,29E-02	3,03E-03	MND	0,00E+00	3,00E-04	1,30E-03	0,00E+00	-3,71E-03
EP-freshwater	kg PO4 eq.	3,10E-03	1,50E-04	6,96E-03	9,85E-05	MND	0,00E+00	9,85E-06	5,46E-05	0,00E+00	-1,50E-04
EP-marine	kg N eq.	9,05E-03	1,15E-03	1,62E-02	7,60E-04	MND	0,00E+00	7,64E-05	6,90E-04	0,00E+00	-1,10E-03
EP-terrestrial	mol N eq.	9,13E-02	1,17E-02	1,66E-01	7,77E-03	MND	0,00E+00	7,80E-04	6,66E-03	0,00E+00	-1,19E-02
POCP	kg NMVOC eq.	3,41E-02	7,07E-03	4,31E-02	4,70E-03	MND	0,00E+00	4,70E-04	1,69E-03	0,00E+00	-8,34E-03
ADPE (disc.2)	kg Sb eq.	1,05E-05	4,90E-06	3,79E-06	3,22E-06	MND	0,00E+00	3,22E-07	1,55E-07	0,00E+00	-1,98E-06
ADPF (disc.2)	MJ, (NCV)	6,44E+01	2,99E+01	7,18E+01	1,98E+01	MND	0,00E+00	1,98E+00	1,07E+00	0,00E+00	-7,52E+01
WDP (disc.2)	m3 World eq.	3,66E+00	1,49E-01	1,62E+00	9,84E-02	MND	0,00E+00	9,84E-03	5,37E-01	0,00E+00	-1,60E-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 experienced with the indicator.										

## ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A4	A5 B1-B7	C1	C2	C3	C4	D
PM	Disease Incidence	7,52E-07	1,23E-07	8,87E-07	8,25E-08	MND	0,00E+00	8,25E-09	1,41E-08	0,00E+00	-2,24E-08
IRP (disc.1)	kBq U235 eq.	7,28E-01	4,08E-02	2,46E-01	2,66E-02	MND	0,00E+00	2,66E-03	1,25E-03	0,00E+00	-5,79E-02
ETP-fw (disc.2)	CTUe	4,80E+01	1,47E+01	2,18E+01	9,71E+00	MND	0,00E+00	9,71E-01	9,15E-01	0,00E+00	-3,67E+00
HTP-c (disc.2)	CTUh	1,67E-08	9,36E-10	3,32E-09	6,20E-10	MND	0,00E+00	6,20E-11	3,34E-10	0,00E+00	-9,07E-10
HTP-nc (disc.2)	CTUh	4,32E-08	1,83E-08	1,01E-07	1,22E-08	MND	0,00E+00	1,22E-09	1,58E-08	0,00E+00	-8,91E-09
SQP (disc.2)	Dimensionless	2,83E+03	1,77E+01	1,65E+01	1,19E+01	MND	0,00E+00	1,19E+00	2,98E-01	0,00E+00	-1,62E+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	A4	A5 B1-B7	C1	C2	C3	C4	D
PERE	MJ, (NCV)	5,46E+02	4,72E-01	6,75E+00	3,09E-01	MND	0,00E+00	3,09E-02	2,62E-02	0,00E+00	-5,82E-01
PERM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ, (NCV)	5,46E+02	4,72E-01	6,75E+00	3,09E-01	MND	0,00E+00	3,09E-02	2,62E-02	0,00E+00	-5,82E-01
PENRE	MJ, (NCV)	6,45E+01	2,99E+01	7,18E+01	1,98E+01	MND	0,00E+00	1,98E+00	1,07E+00	0,00E+00	-7,52E+01
PENRM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ, (NCV)	6,45E+01	2,99E+01	7,18E+01	1,98E+01	MND	0,00E+00	1,98E+00	1,07E+00	0,00E+00	-7,52E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	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	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	1,02E-01	4,92E-03	1,78E-01	3,25E-03	MND	0,00E+00	3,30E-04	2,60E-03	0,00E+00	-5,13E-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.										

## END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	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	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	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	0,00E+00	0,00E+00	7,29E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	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	0,00E+00	0,00E+00	6,92E+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.										

## END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A4	A5 B1-B7	C1	C2	C3	C4	D
HWD	kg	3,00E-04	1,90E-04	6,63E-05	1,30E-04	MND	0,00E+00	1,25E-05	5,28E-06	0,00E+00	-3,20E-04
NHWD	kg	4,55E-01	8,50E-04	6,47E-03	5,60E-04	MND	0,00E+00	5,58E-05	1,00E-04	0,00E+00	-1,17E-03
RWD	kg	1,90E-04	9,91E-06	6,03E-05	6,47E-06	MND	0,00E+00	6,47E-07	3,11E-07	0,00E+00	-1,47E-05
Acronyms	HWD – Hazardous waste disposed; NHWD – Non-hazardous waste disposed; RWD – Radioactive waste disposed.										

## IV) TRIPLE LAYERED LACQUERED PARQUET FLOORING (DU = 1m<sup>2</sup>)

### CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

Impact category	Unit	A1	A2	A3	A4	A5 B1-B7	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	-2,22E+01	2,27E+00	2,04E+01	1,39E+00	MND	0,00E+00	1,39E-01	1,18E+01	0,00E+00	-5,01E+00
GWP-fossil	kg CO2 eq.	3,56E+00	2,27E+00	6,30E+00	1,39E+00	MND	0,00E+00	1,39E-01	1,21E-01	0,00E+00	-5,01E+00
GWP-biogenic	kg CO2 eq.	-2,58E+01	2,04E-03	1,41E+01	1,27E-03	MND	0,00E+00	1,30E-04	1,17E+01	0,00E+00	-2,33E-03
GWP-luluc	kg CO2 eq.	3,69E-02	1,12E-03	2,62E-03	6,80E-04	MND	0,00E+00	6,84E-05	3,24E-05	0,00E+00	-6,90E-04
ODP	kg CFC-11 eq.	8,53E-08	4,94E-08	3,14E-08	3,02E-08	MND	0,00E+00	3,02E-09	2,11E-09	0,00E+00	-2,21E-07
AP	mol H+ eq.	2,72E-02	4,93E-03	6,26E-02	3,03E-03	MND	0,00E+00	3,00E-04	1,29E-03	0,00E+00	-3,67E-03
EP-freshwater	kg PO4 eq.	1,83E-03	1,60E-04	6,96E-03	9,85E-05	MND	0,00E+00	9,85E-06	5,41E-05	0,00E+00	-1,50E-04
EP-marine	kg N eq.	8,60E-03	1,24E-03	1,61E-02	7,60E-04	MND	0,00E+00	7,64E-05	6,90E-04	0,00E+00	-1,09E-03
EP-terrestrial	mol N eq.	9,08E-02	1,26E-02	1,65E-01	7,77E-03	MND	0,00E+00	7,80E-04	6,60E-03	0,00E+00	-1,17E-02
POCP	kg NMVOC eq.	3,44E-02	7,64E-03	4,28E-02	4,70E-03	MND	0,00E+00	4,70E-04	1,68E-03	0,00E+00	-8,26E-03
ADPE (disc.2)	kg Sb eq.	1,14E-05	5,32E-06	3,77E-06	3,22E-06	MND	0,00E+00	3,22E-07	1,54E-07	0,00E+00	-1,96E-06
ADPF (disc.2)	MJ, (NCV)	6,73E+01	3,24E+01	7,17E+01	1,98E+01	MND	0,00E+00	1,98E+00	1,06E+00	0,00E+00	-7,45E+01
WDP (disc.2)	m3 World eq.	3,52E+00	1,61E-01	1,61E+00	9,84E-02	MND	0,00E+00	9,84E-03	5,32E-01	0,00E+00	-1,59E-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.										

## ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A4	A5 B1-B7	C1	C2	C3	C4	D
PM	Disease Incidence	7,52E-07	1,32E-07	8,77E-07	8,25E-08	MND	0,00E+00	8,25E-09	1,39E-08	0,00E+00	-2,22E-08
IRP (disc.1)	kBq U235 eq.	7,46E-01	4,48E-02	2,45E-01	2,66E-02	MND	0,00E+00	2,66E-03	1,24E-03	0,00E+00	-5,74E-02
ETP-fw (disc.2)	CTUe	4,03E+01	1,59E+01	2,17E+01	9,71E+00	MND	0,00E+00	9,71E-01	9,06E-01	0,00E+00	-3,63E+00
HTP-c (disc.2)	CTUh	1,66E-08	1,01E-09	3,30E-09	6,20E-10	MND	0,00E+00	6,20E-11	3,31E-10	0,00E+00	-8,99E-10
HTP-nc (disc.2)	CTUh	4,43E-08	1,97E-08	1,01E-07	1,22E-08	MND	0,00E+00	1,22E-09	1,56E-08	0,00E+00	-8,83E-09
SQP (disc.2)	Dimensionless	2,80E+03	1,90E+01	1,65E+01	1,19E+01	MND	0,00E+00	1,19E+00	2,95E-01	0,00E+00	-1,61E+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 experienced with the indicator.										

## USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A4	A5 B1-B7	C1	C2	C3	C4	D
PERE	MJ, (NCV)	5,40E+02	5,15E-01	6,74E+00	3,09E-01	MND	0,00E+00	3,09E-02	2,59E-02	0,00E+00	-5,77E-01
PERM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ, (NCV)	5,40E+02	5,15E-01	6,74E+00	3,09E-01	MND	0,00E+00	3,09E-02	2,59E-02	0,00E+00	-5,77E-01
PENRE	MJ, (NCV)	6,74E+01	3,24E+01	7,17E+01	1,98E+01	MND	0,00E+00	1,98E+00	1,06E+00	0,00E+00	-7,45E+01
PENRM	MJ, (NCV)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ, (NCV)	6,74E+01	3,24E+01	7,17E+01	1,98E+01	MND	0,00E+00	1,98E+00	1,06E+00	0,00E+00	-7,45E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	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	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	9,82E-02	5,33E-03	1,78E-01	3,25E-03	MND	0,00E+00	3,30E-04	2,58E-03	0,00E+00	-5,09E-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.										

## END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	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	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	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	0,00E+00	0,00E+00	7,22E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	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	0,00E+00	0,00E+00	6,86E+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.										

## END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A4	A5 B1-B7	C1	C2	C3	C4	D
HWD	kg	2,50E-04	2,00E-04	6,62E-05	1,30E-04	MND	0,00E+00	1,25E-05	5,23E-06	0,00E+00	-3,20E-04
NHWD	kg	1,16E-01	9,20E-04	6,46E-03	5,60E-04	MND	0,00E+00	5,58E-05	1,00E-04	0,00E+00	-1,16E-03
RWD	kg	1,90E-04	1,09E-05	6,01E-05	6,47E-06	MND	0,00E+00	6,47E-07	3,08E-07	0,00E+00	-1,46E-05
Acronyms	HWD – Hazardous waste disposed; NHWD – Non-hazardous waste disposed; RWD – Radioactive waste disposed.										

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**ISO 15686-1:2011 Buildings and constructed assets** – Service life planning – Part 1: General principles and framework

**ISO 15686-8:2008 Buildings and constructed assets** – Service life planning – Part 8: Reference service life and service-life estimation

**PN-EN 16485:2014-06 Round and sawn timber** - Environmental Product Declarations - Product category rules for wood and wood-based products for use in construction

## EPD VERIFICATION

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The verification procedure for this Environmental Product Declaration (EPD) has been carried out in accordance with the requirements of ISO 14025 standards. Once the verification process is complete, the EPD remains valid for a period of 5 years. There is no need to recalculate the parameters contained in the EPD after this period, provided that the data underlying the declaration have not changed substantially.

## EPD CONTRIBUTORS

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Manufacturer representatives	Marcin Kowalski: Development Director Anna Wójcik: Export Director
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Note: The sole ownership, liability, and liability of this declaration are with the EPD 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.

# EPD CERTIFICATION



## CERTIFICATE

### TYPE III EPD DECLARATION

(ENVIRONMENTAL PRODUCT DECLARATION)

Reg. No. EPD-P 05.09.2025



This document confirms that the Environmental Product Declaration developed by **Holzexport Sp. z o.o.** for

#### Double and Triple Layered Parquet Flooring

manufactured in accordance with standards:

**EN 13489:2023** and **EN 14342:2013+A1:2018**,

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 September 30, 2025 and is valid until September 30, 2030, or until it is deregistered or its publication on the website [www.epd.org.pl](http://www.epd.org.pl) is discontinued.

Authenticity of this certificate can be confirmed in the public register at [www.epd.org.pl](http://www.epd.org.pl)



**Izabela Sztamberek-Sochan, Ph.D.**  
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