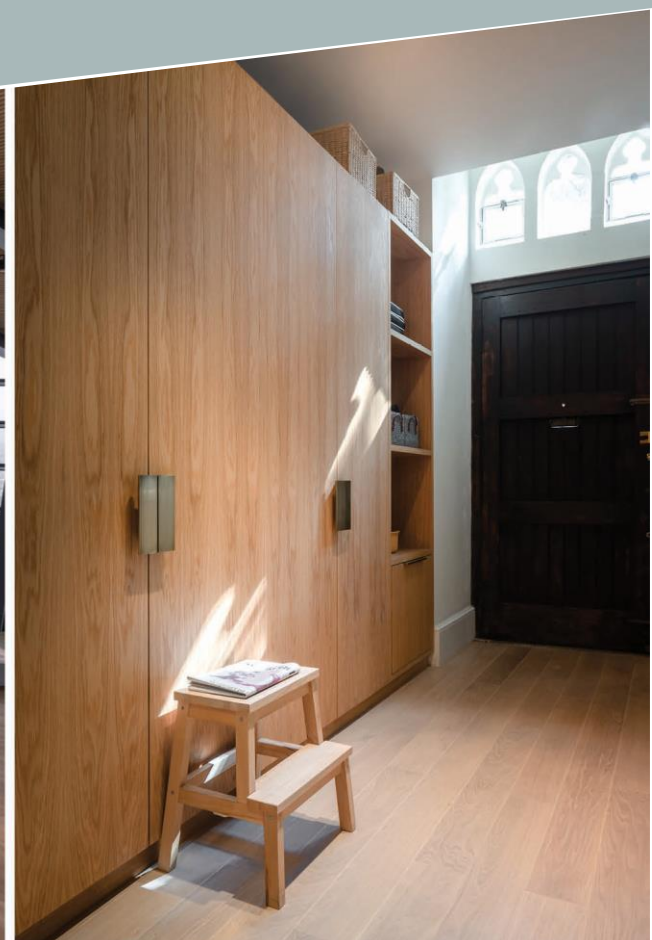


Owner: [Hørning Parket A/S]  
No.: MD-22073-EN  
Issued: 20-12-2022  
Valid to: 20-12-2027

3<sup>rd</sup> PARTY VERIFIED

**EPD**

VERIFIED ENVIRONMENTAL PRODUCT DECLARATION | ISO 14025 & EN 15804



**Owner of declaration**

Hørning Parket A/S  
Christiansmindevej 12  
8660 Skanderborg, Denmark  
CVR-nr.: 33965362



**Issued:**

20-12-2022

**Valid to:**

20-12-2027

**Programme**

EPD Danmark  
[www.epddanmark.dk](http://www.epddanmark.dk)



- Industry EPD
- Product EPD

**Declared product(s)**

- Solid Plank 16/20 mm thickness (Untreated)
- Origin Plank 20/28 mm thickness (Untreated)

The EPD covers two hardwood types - oak and ash. The moisture content of the products is 8% ±2%

Number of declared datasets/product variations: 2

**Production site**

Production site of Skanderborg in Denmark

**Product(s) use**

Plank floor, which is ready to be installed in accordance with the instructions of Hørning Parket A/S. The floor is untreated, and hence requires surface treatment during installation.

The floor is intended for indoor use.

**Declared/ functional unit**

The declared unit is set as 1 m<sup>2</sup> floor in oak or ash.

**Year of data**

2021

**EPD version**

[1], November 2022

**Basis of calculation**

This EPD is developed in accordance with the European standard EN 15804:2012+A2:2019.

**Comparability**

EPDs of construction products may not be comparable if they do not comply with the requirements in EN 15804. EPD data may not be comparable if the datasets used are not developed in accordance with EN 15804 and if the background systems are not based on the same database.

**Validity**


This EPD has been verified in accordance with ISO 14025 and is valid for 5 years from the date of issue.

**Use**

The intended use of an EPD is to communicate scientifically based environmental information for construction products, for the purpose of assessing the environmental performance of buildings.

**EPD type**

- Cradle-to-gate with modules C1-C4 and D
- Cradle-to-gate with options, modules C1-C4 and D
- Cradle-to-grave and module D
- Cradle-to-gate
- Cradle-to-gate with options

CEN standard EN 15804 serves as the core PCR
Independent verification of the declaration and data, according to EN ISO 14025
<input type="checkbox"/> internal <input checked="" type="checkbox"/> external
Third party verifier:  Linda Høiby Life Cycle Assessment Consulting

  
Martha Katrine Sørensen  
EPD Danmark

**Life cycle stages and modules (MND = module not declared)**

Product			Construction process		Use								End of life				Beyond the system boundary
Raw material supply	Transport	Manufacturing	Transport	Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Re-use, recovery and recycling potential	
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
<b>X</b>	<b>X</b>	<b>X</b>	MND	MND	MND	MND	MND	MND	MND	MND	MND	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	

# Product information

## Product description

The main product components are shown in the table below.

Material	Weight-% of declared product
Wood	100%

*Thermal conductivity, [W/m<sup>2</sup>K]:*

- Oak and Ash: 0.16

*Thermal resistance, [m<sup>2</sup> °K/W]:*

- 16 mm wooden oak or ash floor 0.100
- 20 mm wooden oak or ash floor 0.125
- 28 mm wooden oak or ash floor 0.175

## Representativity

This declaration, including data collection and the modelled foreground system including results, represents the production of 1 m<sup>2</sup> on the production site located in Skanderborg. Product specific data are based on average values collected at the production site for the year 2021. Background data are based onecoinvent 3.8 (Released 09-2021) and are less than 10 years old. Generally, the background datasets used are of high quality with a reference year of 2021 in line with release of the database. All most all datasets are from Europe or Denmark and electricity is country specific. In processes deemed particularly important (e.g. sawmill activities), the energy consumption has been modified to reflect local supply conditions. In this respect, while the geographical representativeness may have been lacking, the technical representation has been ensured.

## Hazardous substances

The solid wooden floors by Hørning Parket A/S and analyzed in this study do not contain any substances listed in the "Candidate List of Substances of Very High Concern for Authorisation"

(<http://echa.europa.eu/candidate-list-table>)

## Essential characteristics

Hørning Parket A/S products are CE certified in accordance with the European standard regarding wooden floors for indoor usage EN 14342:2013.

Further technical information can be obtained by contacting Hørning Parket A/S or on the their website:

### Solid Plank 16/20 mm:

[https://www.horningfloor.dk/wp-content/uploads/2019/05/Horning\\_Solid\\_Planks\\_DATA\\_SHEET\\_uk210519.pdf](https://www.horningfloor.dk/wp-content/uploads/2019/05/Horning_Solid_Planks_DATA_SHEET_uk210519.pdf)

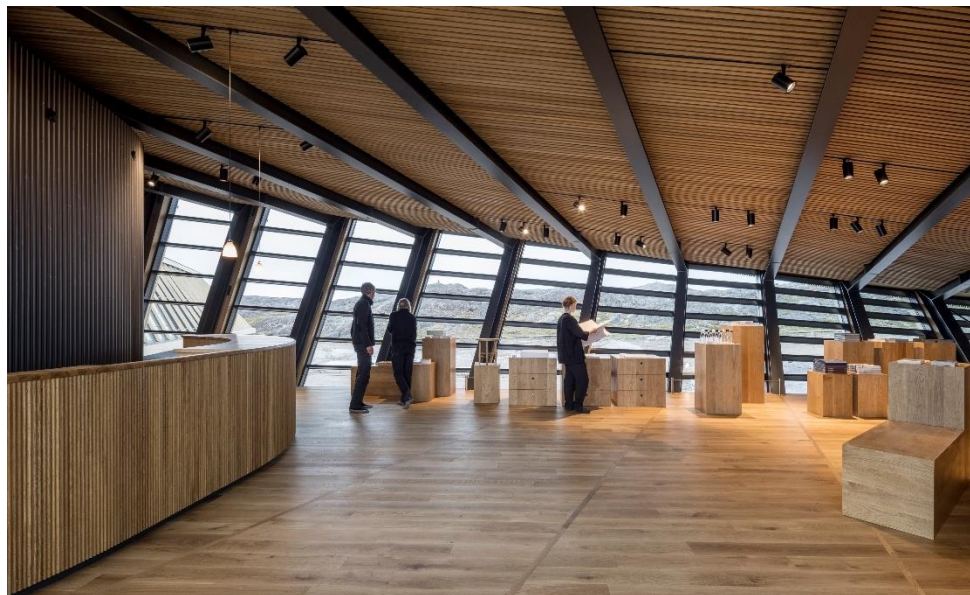
### Origin Plank 20/28 mm:

[https://www.horningfloor.dk/wp-content/uploads/2019/05/Horning\\_Origin\\_Planks\\_DATASHEET\\_uk210519.pdf](https://www.horningfloor.dk/wp-content/uploads/2019/05/Horning_Origin_Planks_DATASHEET_uk210519.pdf)

## Reference Service Life (RSL)

The reference service life is not declared, as this EPD is based on a cradle-to-gate instead of a functional unit, assessment where the service life is not included.

Picture of product(s)



**Solid Plank**



**Origin Plank**

# LCA Background

## Declared unit

The LCI and LCIA results in this EPD relates to 1 m<sup>2</sup> of solid hardwood floor. The product variations include two different wood species (oak and ash) and different thickness. The specifications for each product variation are presented in the tables below.

Name	Declared unit	Thickness (mm)	Wood (kg)	Scaling factor
Solid Plank 16 - 20mm	1 m <sup>2</sup>	16	10.4	1.00
	1 m <sup>2</sup>	20	13.0	1.25
Origin Plank 20 - 28mm	1 m <sup>2</sup>	20	13.0	1.00
	1 m <sup>2</sup>	28	18.2	1.40

The declared unit (1 m<sup>2</sup>) is calculated based on the measurements of the various floor. The density of oak and ash are both 650kg/m<sup>3</sup> at 8% moisture content

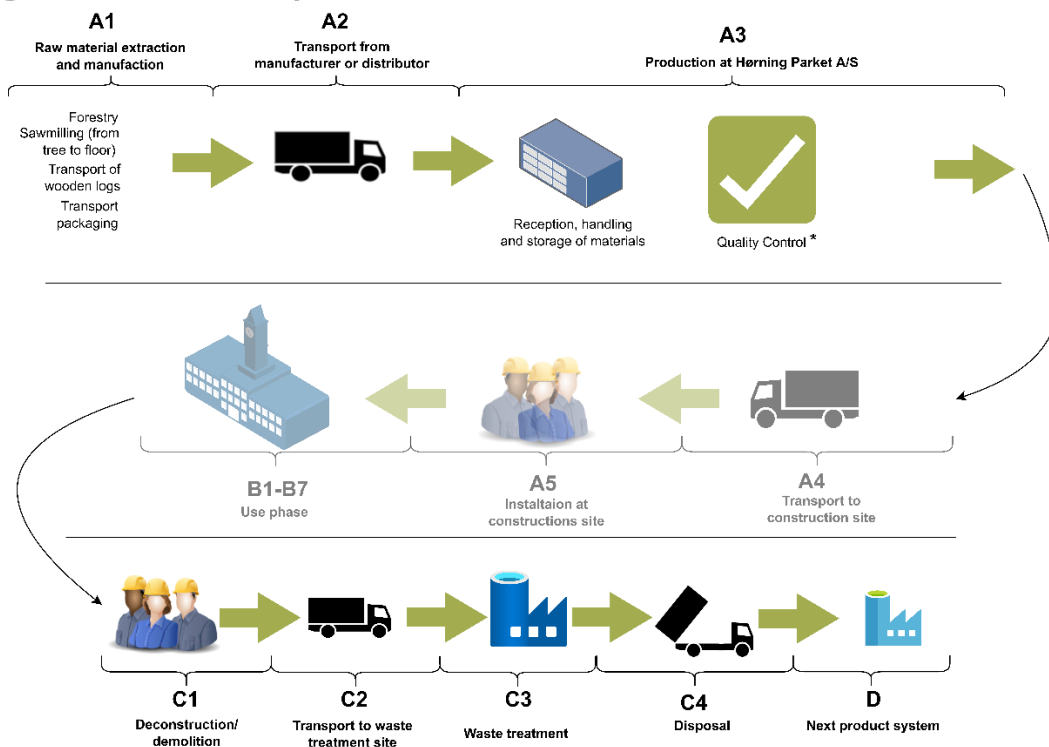
## Functional unit

N/A

## PCR

This EPD is developed according to the core rules for the product category of construction products in EN 15804:2012+A2:2019 (2019-11-04), and cPCR EN 16485:2014 (2014-05-02) concerning wood and wood-based products for use in construction

## Flow diagram for all declared products



\* Sustainability and tracability control, moisture control, dimension control, grading and surface control

### System boundary

This study is cradle-to-gate and covers the life cycle sub modules A1-A3, C1-C4 and D, in which 100 weight-% has been accounted for.

The general rules apply for exclusion of inputs and outputs in the LCA, is in compliance with the rules in EN 15804:2012+A2:2019, 6.3.5, where the omission for input-flows pr. module must be maximum 5 % of energy usage and mass and at most 1 % for unit processes.

### Product stage (A1-A3):

The product stage comprises the acquisition of all raw materials, products and energy, transport to the production site, packaging and waste processing up to the "end-of-waste" state or final disposal. The LCA results are declared in aggregated form for the product stage, which means, that the sub-modules A1, A2 and A3 are declared as one module A1-A3.

All the floor products in this study consist of wooden planks made of either oak or ash. For the pre-manufactured solid wooden floors some additional tape or oak strips are used to hold the planks together. As prescribed by EN 15804:2012+A2:2019, material flows carrying specific inherent properties i.e. energy content or elementary composition (e.g. biogenic carbon content), shall always be allocated reflecting the physical flow, irrespective of the allocation chosen for the process. Consequently, all by products resulting in downstream processes (e.g. boards and sawdust) are attributed the burdens of the forestry activities and transport from forests to the sawmill by mass allocation, which has required modifications to the generic datasets.

For the production at the Hørning Parket A/S facilities, electricity, district heating, diesel and propane (for forklifts) are used as energy sources. Due to the disparity between processing of locally produced and pre-manufactured products, economic allocation is applied to the energy consumption on the site. Consequently, the share of gross profit is used as an allocation key since the difference in profit represents the additional energy and work that has gone into drying, splitting, and planning, compared to the pre-manufactured products. Electricity is the

main source for the operation of the facilities, whereas district heat are used for drying planks and maintaining a comfortable working environment. Hørning Parket A/S uses water for both sanitary purposes and for the process of maintaining the humidity of all solid wooden floors in storage.

### End of Life (C1-C4):

In module C1 the deconstruction of the products covered by this study is assumed to be done manually, and thus not require any processes with an environmental impact. Hence, no impact is recorded in this module.

100% of the waste wood is processed by energy recovery through municipal incineration. Parquet and plank floors are assumed to be transported an average distance of 50 km from the demolition site to a waste facility where they are shredded and subsequently incinerated for energy recovery.

As specified in the cPCR, EN 16485:2014, Section 6.3.4.5, page 18, the default attribution of end-of-life processes of wood and wood-based products does not include landfilling (C4) after energy recovery. Moreover, it can be assumed that fly ash produced from the municipal incineration process is used in new production cycles as instead of being disposed. Therefore, disposal does not take place.

### Re-use, recovery and recycling potential (D):

All of the materials used in the production and maintenance of pallets have potential benefits and load beyond the system boundary. Primarily this consists of the waste wood, which is sent for energy recovery through municipal incineration with fly ash extraction. Electricity generated through the waste incineration at the CHP plant is assumed to replace the average Danish electricity mix, while thermal energy is utilized as district heating. Due to the constrained conditions of the technologies on the market, it is assumed that thermal energy replaces heating from natural gas.

# LCA results

## Solid Plank - 16 mm thickness (Untreated):

Solid Plank 16 mm (Untreated) ENVIRONMENTAL IMPACTS PER 1 m <sup>2</sup>							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO <sub>2</sub> eq.]	-1.29E+01	0,00E+00	1,73E-01	1,65E+01	0,00E+00	-1,57E+00
GWP-fossil	[kg CO <sub>2</sub> eq.]	3.36E+00	0,00E+00	1,73E-01	1,98E-01	0,00E+00	-1,53E+00
GWP-biogenic	[kg CO <sub>2</sub> eq.]	-1.63E+01	0,00E+00	1,47E-04	1,64E+01	0,00E+00	-3,38E-02
GWP-luluc	[kg CO <sub>2</sub> eq.]	1.43E-02	0,00E+00	6,79E-05	1,53E-04	0,00E+00	-1,42E-03
ODP	[kg CFC 11 eq.]	4.35E-07	0,00E+00	4,00E-08	1,25E-08	0,00E+00	-6,93E-08
AP	[mol H <sup>+</sup> eq.]	2.23E-02	0,00E+00	7,02E-04	1,85E-03	0,00E+00	-3,13E-03
EP-freshwater	[kg PO <sub>4</sub> eq.]	1.93E-03	0,00E+00	1,11E-05	9,45E-05	0,00E+00	-5,14E-04
EP-marine	[kg N eq.]	6.09E-03	0,00E+00	2,11E-04	9,27E-04	0,00E+00	-8,81E-04
EP-terrestrial	[mol N eq.]	6.50E-02	0,00E+00	2,31E-03	8,95E-03	0,00E+00	-9,66E-03
POCP	[kg NMVOC eq.]	2.10E-02	0,00E+00	7,07E-04	2,19E-03	0,00E+00	-2,34E-03
ADPm <sup>1</sup>	[kg Sb eq.]	8.76E-06	0,00E+00	6,01E-07	5,99E-07	0,00E+00	-3,74E-06
ADPf <sup>1</sup>	[MJ]	4.52E+01	0,00E+00	2,61E+00	1,97E+00	0,00E+00	-2,50E+01
WDP <sup>1</sup>	[m <sup>3</sup> world eq. deprived]	4.24E-01	0,00E+00	7,83E-03	3,53E-02	0,00E+00	-2,34E-01
Caption	GWP-total = Globale Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use						
Disclaimer	<sup>1</sup> The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.						

Solid Plank 16 mm (Untreated) ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 m <sup>2</sup>							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	7.50E-07	0,00E+00	1,10E-08	1,49E-08	0,00E+00	1,88E-08
IRP <sup>2</sup>	[kBq U235 eq.]	2.53E-01	0,00E+00	6,69E-02	1,34E-02	0,00E+00	1,82E-02
ETP-fw <sup>1</sup>	[CTUe]	8.25E+01	0,00E+00	7,95E+00	2,04E+00	0,00E+00	3,42E+00
HTP-c <sup>1</sup>	[CTUh]	2.36E-09	0,00E+00	1,56E-10	6,61E-11	0,00E+00	4,31E-10
HTP-nc <sup>1</sup>	[CTUh]	7.05E-08	0,00E+00	4,01E-09	2,14E-09	0,00E+00	1,89E-08
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects						
Disclaimer	<sup>1</sup> The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. <sup>2</sup> 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.						

Solid Plank 16 mm (Untreated) RESOURCE USE PER 1 m <sup>2</sup>							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	4.73E+01	0,00E+00	3,69E-02	7,25E-01	0,00E+00	-8,05E+00
PERM	[MJ]	1.96E+02	0,00E+00	0,00E+00	-1,96E+02	0,00E+00	0,00E+00
PERT	[MJ]	2.43E+02	0,00E+00	3,69E-02	-1,95E+02	0,00E+00	-8,05E+00
PENRE	[MJ]	4.52E+01	0,00E+00	2,61E+00	1,97E+00	0,00E+00	-2,50E+01
PENRM	[MJ]	0.00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	4.52E+01	0,00E+00	2,61E+00	1,97E+00	0,00E+00	-2,50E+01
SM	[kg]	0.00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	[MJ]	0.00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	[MJ]	0.00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m <sup>3</sup> ]	5.26E-02	0,00E+00	2,91E-04	4,44E-03	0,00E+00	-2,73E-02
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water						

Solid Plank 16 mm (Untreated)							
WASTE CATEGORIES AND OUTPUT FLOWS PER 1 m <sup>2</sup>							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	9.55E-05	0,00E+00	6,83E-06	2,11E-05	0,00E+00	-2,22E-05
NHWD	[kg]	2.26E+00	0,00E+00	1,34E-01	7,64E-02	0,00E+00	-6,80E-02
RWD	[kg]	2.12E-04	0,00E+00	1,77E-05	6,08E-06	0,00E+00	-4,39E-05
CRU	[kg]	0,00E+00	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	0,00E+00	0,00E+00
MER	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	[MJ]	0,00E+00	0,00E+00	0,00E+00	8,78E+00	0,00E+00	0,00E+00
EET	[MJ]	0,00E+00	0,00E+00	0,00E+00	3,29E+01	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EE = Exported energy						

Solid Plank 16 mm (Untreated)		
BIOGENIC CARBON CONTENT PER 1 m <sup>2</sup>		
Parameter	Unit	At the factory gate
Biogenic carbon content in product	[kg C]	4.81
Biogenic carbon content in accompanying packaging	[kg C]	0.11
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO <sub>2</sub>	



**Origin Plank - 20 mm thickness (Untreated):**

Origin Plank 20 mm (Untreated) ENVIRONMENTAL IMPACTS PER 1 m <sup>2</sup>							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO <sub>2</sub> eq.]	-1.72E+01	0,00E+00	2,16E-01	2,07E+01	0,00E+00	-1,96E+00
GWP-fossil	[kg CO <sub>2</sub> eq.]	3.13E+00	0,00E+00	2,16E-01	2,48E-01	0,00E+00	-1,91E+00
GWP-biogenic	[kg CO <sub>2</sub> eq.]	-2.03E+01	0,00E+00	1,84E-04	2,04E+01	0,00E+00	-4,23E-02
GWP-luluc	[kg CO <sub>2</sub> eq.]	1.84E-02	0,00E+00	8,48E-05	1,91E-04	0,00E+00	-1,77E-03
ODP	[kg CFC 11 eq.]	4.61E-07	0,00E+00	5,00E-08	1,56E-08	0,00E+00	-8,67E-08
AP	[mol H <sup>+</sup> eq.]	1.73E-02	0,00E+00	8,77E-04	2,32E-03	0,00E+00	-3,91E-03
EP-freshwater	[kg PO <sub>4</sub> eq.]	1.75E-03	0,00E+00	1,39E-05	1,18E-04	0,00E+00	-6,42E-04
EP-marine	[kg N eq.]	6.18E-03	0,00E+00	2,64E-04	1,16E-03	0,00E+00	-1,10E-03
EP-terrestrial	[kg N eq.]	6.67E-02	0,00E+00	2,89E-03	1,12E-02	0,00E+00	-1,21E-02
POCP	[kg NMVOC eq.]	2.18E-02	0,00E+00	8,84E-04	2,74E-03	0,00E+00	-2,93E-03
ADPm <sup>1</sup>	[kg Sb eq.]	1.01E-05	0,00E+00	7,51E-07	7,49E-07	0,00E+00	-4,68E-06
ADPf <sup>1</sup>	[MJ]	4.54E+01	0,00E+00	3,27E+00	2,46E+00	0,00E+00	-3,12E+01
WDP <sup>1</sup>	[m <sup>3</sup> world eq. deprived]	3.31E-01	0,00E+00	9,78E-03	4,41E-02	0,00E+00	-2,93E-01
Caption	GWP-total = Globale Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication - aquatic freshwater; EP-marine = Eutrophication - aquatic marine; EP-terrestrial = Eutrophication - terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential - minerals and metals; ADPf = Abiotic Depletion Potential - fossil fuels; WDP = water use						
Disclaimer	<sup>1</sup> The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.						

Origin Plank 20 mm (Untreated) ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 m <sup>2</sup>							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	8.85E-07	0,00E+00	1,86E-08	2,35E-08	0,00E+00	-2,03E-08
IRP <sup>2</sup>	[kBq U235 eq.]	3.85E-01	0,00E+00	1,68E-02	2,28E-02	0,00E+00	-2,16E-01
ETP-fw <sup>1</sup>	[CTUe]	8.46E+01	0,00E+00	2,55E+00	4,27E+00	0,00E+00	-1,91E+01
HTP-c <sup>1</sup>	[CTUh]	2.49E-09	0,00E+00	8,26E-11	5,39E-10	0,00E+00	-3,87E-10
HTP-nc <sup>1</sup>	[CTUh]	6.68E-08	0,00E+00	2,67E-09	2,37E-08	0,00E+00	-1,11E-08
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation - human health; ETP-fw = Eco toxicity - freshwater; HTP-c = Human toxicity - cancer effects; HTP-nc = Human toxicity - non cancer effects						
Disclaimer	<sup>1</sup> The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. <sup>2</sup> 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.						

Origin Plank 20 mm (Untreated) RESOURCE USE PER 1 m <sup>2</sup>							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	5.86E+01	0,00E+00	4,62E-02	9,06E-01	0,00E+00	-1,01E+01
PERM	[MJ]	2.44E+02	0,00E+00	0,00E+00	-2,44E+02	0,00E+00	0,00E+00
PERT	[MJ]	3.03E+02	0,00E+00	4,62E-02	-2,44E+02	0,00E+00	-1,01E+01
PENRE	[MJ]	4.54E+01	0,00E+00	3,27E+00	2,46E+00	0,00E+00	-3,12E+01
PENRM	[MJ]	0.00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	4.54E+01	0,00E+00	3,27E+00	2,46E+00	0,00E+00	-3,12E+01
SM	[kg]	0.00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	[MJ]	0.00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	[MJ]	0.00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m <sup>3</sup> ]	2.29E-02	0,00E+00	3,64E-04	5,55E-03	0,00E+00	-3,41E-02
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water						

Origin Plank 20 mm (Untreated)							
WASTE CATEGORIES AND OUTPUT FLOWS PER 1 m <sup>2</sup>							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	1.06E-04	0,00E+00	8,53E-06	2,64E-05	0,00E+00	-2,78E-05
NHWD	[kg]	2.28E+00	0,00E+00	1,68E-01	9,55E-02	0,00E+00	-8,51E-02
RWD	[kg]	2.59E-04	0,00E+00	2,21E-05	7,60E-06	0,00E+00	-5,49E-05
CRU	[kg]	0.00E+00	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	0.00E+00	0.00E+00
MER	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	1,10E+01	0,00E+00	0,00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	4,12E+01	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EE = Exported energy						

Origin Plank 20 mm (Untreated)		
BIOGENIC CARBON CONTENT PER 1 m <sup>2</sup>		
Parameter	Unit	At the factory gate
Biogenic carbon content in product	[kg C]	6.02
Biogenic carbon content in accompanying packaging	[kg C]	0.13
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO <sub>2</sub>	

## Additional information

### Interpretation

Results indicate, that the majority of environmental impacts are associated with raw material extraction and production of components (A1) particularly due to sawmill activities. In this respect, the electricity supply is considered one of the largest contributors within the dataset, which is why it was modified to reflect local conditions. For this reason, emissions for 1 m<sup>3</sup> of wooden boards will vary significantly depending on the geographical location of production.

### Technical information on scenarios

#### End of life (C1-C4)

Scenario information	Value	Unit
For reuse	0	%
For recycling	0	%
For incineration	100	%
For final disposal	0	%
Assumptions for scenario development	N/A	As appropriate

### Indoor air



*The EPD does not give information on release of dangerous substances to indoor air because the horizontal standards on measurement of release of regulated dangerous substances from construction products using harmonised test methods according to the provisions of the respective technical committees for European product standards are not available.*

Certificatas for indoor Air Comfort can be found at Hørning Parket's webpage  
<https://www.horningfloor.dk/miljoe/>

### Soil and water

*The EPD does not give information on release of dangerous substances to soil and water because the horizontal standards on measurement of release of regulated dangerous substances from construction products using harmonised test methods according to the provisions of the respective technical committees for European product standards are not available.*

## References

<b>Publisher</b>	 epddanmark www.epddanmark.dk
<b>Programme operator</b>	Danish Technological Institute Buildings & Environment Gregersensvej DK-2630 Taastrup www.teknologisk.dk
<b>LCA-practitioner</b>	 NIRAS A/S Østre Havnegade 12 9000 Aalborg, Denmark Project manager: Jesper Jakobsen LCA practitioners: Jesper Jakobsen & Asbjørn Uldbjerg Bundgaard QA/internal review: Ninkie Bendtsen
<b>LCA software / background data</b>	SimaPro 9.3 / ecoinvent 3.8
<b>3<sup>rd</sup> party verifier</b>	Life Cycle Assessment Consulting Linda Højbye

### General Programme Instructions

Version 2.0

[www.epddanmark.dk](http://www.epddanmark.dk)

### ecoinvent 3.8

<https://ecoinvent.org/>

### EN 15804:2012+A2:2019

Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products

### EN 14342:2013

Wood flooring - Characteristics, evaluation of conformity and marking.

### EN 16449:2014

Wood and wood-based products – Calculation of the biogenic carbon content of wood and conversion to carbon dioxide

### EN 16485:2014

Round and sawn timber – Environmental Product Declarations – Product category rules for wood and wood-based products for use in construction

### CEN/TC 16970

Sustainability of construction works – Guidance for the implementation of EN 15804

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**EPD-Norge NPCR 015 v4.0**

Part B for wood and wood-based products

**ISO 14025:2010**

Environmental labels and declarations – Type III environmental declarations – Principles and procedures

**ISO 14040:2008**

Environmental management – Life cycle assessment – Principles and framework

**ISO 14044:2008**

Environmental management – Life cycle assessment – Requirements and guidelines