

Owner: BV Trappen A/S
No.: MD-24066-EN
Issued: 17-09-2024
Valid to: 17-09-2029

3rd PARTY VERIFIED

EPD

VERIFIED ENVIRONMENTAL PRODUCT DECLARATION | ISO 14025 & EN 15804



Owner of declaration
BV Trappen A/S
Følhøjvej 3, Koldby
7752 Snedsted
[VAT no.: 37349127]



Issued:
17-09-2024

Valid to:
17-09-2029

Programme
EPD Danmark
www.epddanmark.dk



- Industry EPD
- Product EPD

Basis of calculation

This EPD is developed and verified in accordance with the European standard EN 15804+A2.

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.

Declared product(s)

The declared products are wooden staircases provided in ash, oak, or pine. The declared staircases are **T10&T13, T11-12&T14 and T15** where T10&T13 represents an average of the staircase type T10 and T13 and T11-12&T14 denotes an average representation of the staircase type T11, T12 and T14. These groupings can be made as their individual results is within +/-10% of their average on all core environmental impact categories. Each declared staircase can be constructed in either ash, oak or pine as the main wood material.

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

Number of declared datasets/product variations: 15

Production site

Følhøjvej 3, Koldby 7752 Snedsted, Denmark

Use of Guarantees of Origin

- No certificates used
- Electricity covered by GoO
- Biogas covered by GoO

Declared/ functional unit

1 staircase rise.
1 rise is defined as the distance or climb between each step.

Year of production site data (A3)

2023

EPD version

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:
Guangli Du

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	
X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X	

Product information

Product description

The main product components are shown in the table below for each declared staircase.

T10&T13 – Ash, Oak or Pine	
Material	Weight-% of declared product
Wood (Ash, Oak or Pine)	67-72%
HDF	6-7%
MDF	15-18%
Masonit	5%
Adhesive	1%
T11-12&T14 – Ash, Oak or Pine	
Material	Weight-% of declared product
Wood (Ash, Oak or Pine)	69-73%
HDF	7-8%
MDF	13-15%
Masonit	4-5%
Adhesive	1%
T15– Ash, Oak or Pine	
Material	Weight-% of declared product
Wood (Ash, Oak or Pine)	70-74%
HDF	9-10%
MDF	12-13%
Masonit	4%
Adhesive	1-2%

Product packaging:

The composition of the sales- and transport packaging for each of the declared staircases are shown in the table below.

T10&T13 – Ash, Oak or Pine		
Material	Weight of packaging material (kg)	Weight-% of packaging
Cardboard	0.003	0%
Foam	0.050	2%
Bobblewrap	0.117	6%
Plastic film	0.139	7%
Pallet	1.786	85%
Total	2.095	100%
T11-12&T14 – Ash, Oak or Pine		
Material	Weight of packaging material (kg)	Weight-% of packaging
Cardboard	0.004	0%
Foam	0.064	3%
Bobblewrap	0.150	7%
Plastic film	0.178	8%
Pallet	1.786	82%
Total	2.181	100%

T15– Ash, Oak or Pine		
Material	Weight of packaging material (kg)	Weight-% of packaging
Cardboard	0.005	0%
Foam	0.079	3%
Bobblewrap	0.186	8%
Plastic film	0.222	10%
Pallet	1.786	78%
Total	2.278	100%

Representativity

This declaration, including data collection and the modeled foreground system including results, represents the production of wooden staircases on the production site located in Thy, Denmark. Product specific data are based on average values collected in the period 2023. Background data are based on datasets from the LCA database: EcoInvent 3.9.1 and are less than 10 years old. Generally, the used background datasets are of high quality, and the majority of the datasets are only a couple of years old.

Hazardous substances

The products does not contain substances listed on the "Candidate List of Substances of Very High Concern for authorisation"

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

Product(s) use

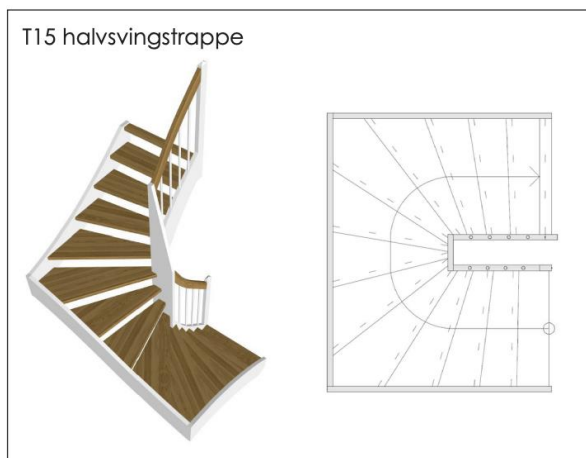
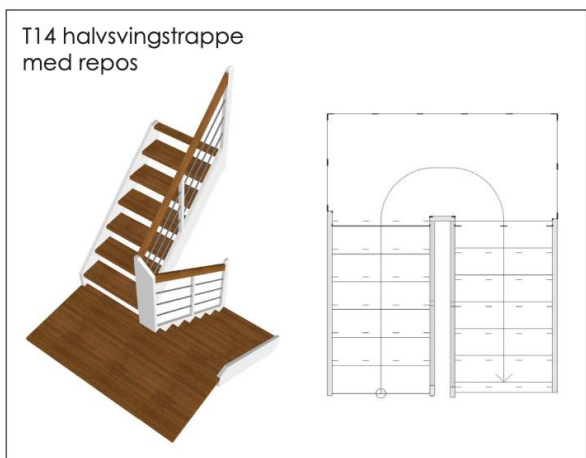
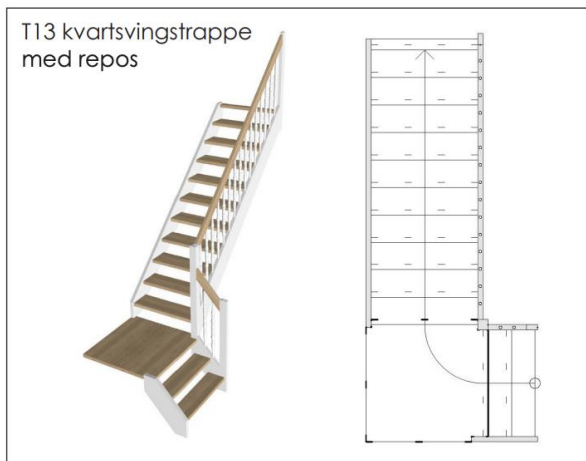
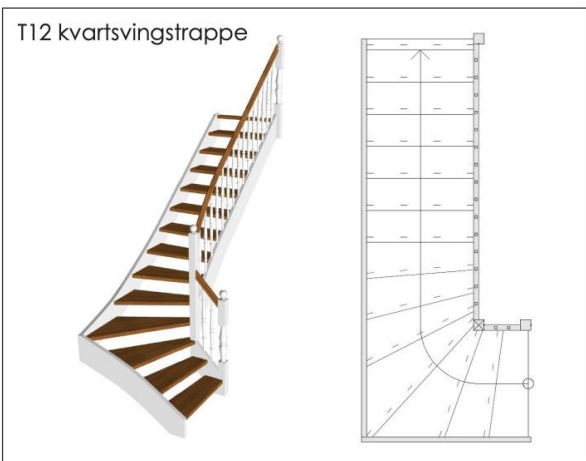
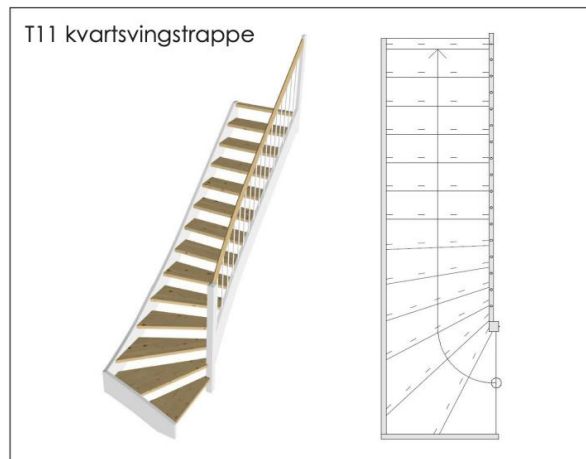
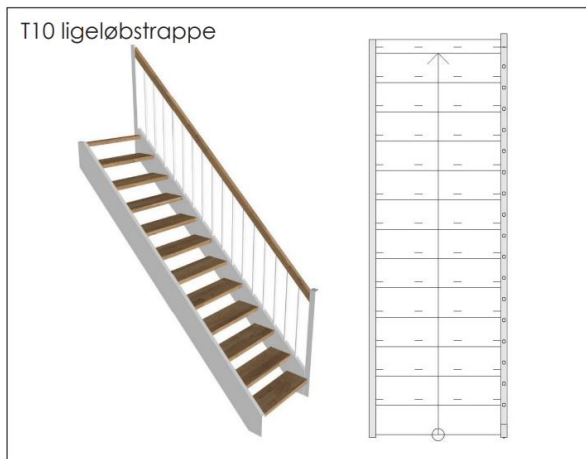
The wooden staircase is for indoor use in any kind of building and serves the function of enabling access to the levels in the building. The product is assembled and installed on-site using screws, fittings and glue.

Essential characteristics

The products declared within this EPD meets the technical requirements stipulated by Dansk Trappe Kontrol (DTK)

Further technical information can be obtained by contacting the manufacturer or on the manufacturer's website: <https://bv-trappen.dk/>

Picture of product(s)



LCA background

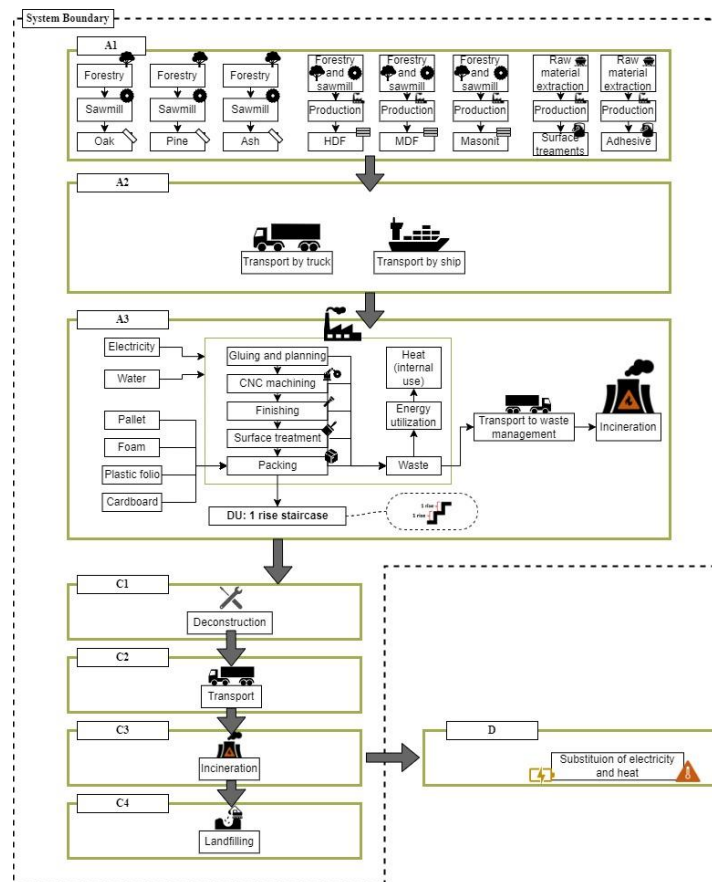
Declared unit

The LCI and LCIA results in this EPD relates to 1 rise of the staircase types T10&T13, T11-12&T14 and T15 in ash, oak and pine.

T10&T13				
Name	Unit	Ash	Oak	Pine
Declared unit	Rise	1	1	1
Conversion factor to 1 kg	N/A	11.49	11.40	9.78
T11-12&T14				
Name	Unit	Ash	Oak	Pine
Declared unit	Rise	1	1	1
Conversion factor to 1 kg	N/A	14.05	13.96	12.15
T15				
Name	Unit	Ash	Oak	Pine
Declared unit	Rise	1	1	1
Conversion factor to 1 kg	N/A	16.75	16.65	14.85

Functional unit

Flowdiagram



Not defined

PCR

This EPD is developed according to the core rules for the product category of construction products in EN 15804 and the cPCR EN 16485 for wood and wood based products for construction use.

Energy modelling principles

Foreground system:

The declared products are manufactured (A3) using Guarantees of Origin (GOs) for 100% of electricity from Danish wind power

Background system:

Upstream processes are modelled using European average energy mixes and certain country residual mixes. Downstream processes are modelled using European and national average energy mixes.

System boundary

This study is cradle-to-gate with modules C1-C4 and D, in which 100 weight-% has been accounted for.

The general rules for the exclusion of inputs and outputs follows the requirements in EN 15804, 6.3.5, where the total of neglected input flows per module shall be a maximum of 5 % of energy usage and mass and 1 % of energy usage and mass for unit processes.

Product stage (A1-A3) includes:

A1 – Extraction and processing of raw materials

A2 – Transport to the production site

A3 – Manufacturing processes

The product stage comprises the production 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 stages comprise the modules A1 to A3.

In A1, the production of sawn wood is covered which includes forestry operations, transport to sawmill and processing of sawlogs in the sawmill to produce the sawn wood in oak, ash and pine. For the high and medium density fibreboards, masonit and balusters, further processing steps to produce these products are covered. In addition is the extraction and transportation of the raw materials used for the surface treatments and adhesive covered alongside their production. The module further covers the production of the required product and transport packaging incl. use of pallets for all above mentioned materials and components.

In A2, the transport of each material and components used for the specific staircase is included. This includes transport by container ship, ferry, truck and railway depending on material, component and its country of origin.

A3 covers the production of the declared staircases product which involves gluing, planing the sawn wood, CNC machining,

finishing, surface treatments and packaging. Electricity consumption is allocated to the declared products based on allocation keys deducted from production data, amount of cubic meter wood required for the staircase types and inherent differences between oak, ash and pine in terms of required processing power - taken from representative background processes from the Eco-invent database.

A3 further includes processing of production- and misch waste. Here, production waste from wood processing is used as input for internal heating using a furnace, which covers their total heat demand. The waste processing likewise includes A1 product and transport packaging and pallet usage. The waste is modelled up to the “end-of-waste” state or final disposal.

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

The end-of-life stage comprises a modelled scenario in which the staircase is deconstructed in C1 from the building in a demolition process. The staircase is assumed to be transported in C2 from the demolition site to a waste handling facility where it is chipped in preparation for incineration at a municipal plant with energy recovery in C3. C.f. cPCR EN 16485:2014, end-of-life processes of wood and wood based products for construction does not include landfilling in C4. Module D, accounts for the net output flow of generated energy that substitutes electricity and heat production from natural gas.

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

Module D, accounts for the net output flow of generated energy that substitutes electricity and heat production from natural gas.

LCA results

T10&T13 Ash - Results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T10&T13 - ASH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	-8,36E+00	4.06E-02	6.33E-02	1.88E+01	0.00E+00	-7.44E+00
GWP-fossil	[kg CO ₂ eq.]	1,02E+01	4.06E-02	6.32E-02	1.61E-01	0.00E+00	-7.30E+00
GWP-biogenic	[kg CO ₂ eq.]	-1,86E+01	9.32E-06	5.79E-05	1.86E+01	0.00E+00	-1.35E-01
GWP-luluc	[kg CO ₂ eq.]	2,74E-02	4.57E-06	3.12E-05	2.15E-04	0.00E+00	-6.49E-03
ODP	[kg CFC 11 eq.]	2,89E-07	6.46E-10	1.38E-09	4.14E-08	0.00E+00	-2.85E-07
AP	[mol H ⁺ eq.]	6,66E-02	3.76E-04	1.38E-04	9.78E-03	0.00E+00	-1.14E-02
EP-freshwater	[kg P eq.]	1,92E-03	1.25E-06	4.49E-06	9.53E-05	0.00E+00	-1.59E-03
EP-marine	[kg N eq.]	1,88E-02	1.74E-04	3.49E-05	2.74E-03	0.00E+00	-3.33E-03
EP-terrestrial	[mol N eq.]	2,03E-01	1.90E-03	3.54E-04	4.71E-02	0.00E+00	-3.71E-02
POCP	[kg NMVOC eq.]	6,74E-02	5.62E-04	2.14E-04	7.11E-03	0.00E+00	-1.49E-02
ADPm ¹	[kg Sb eq.]	5,53E-05	1.42E-08	2.07E-07	4.40E-07	0.00E+00	-1.08E-05
ADPf ¹	[MJ]	1,87E+02	5.32E-01	8.98E-01	2.17E+00	0.00E+00	-1.12E+02
WDP ¹	[m ³ world eq. deprived]	3,51E+00	1.15E-03	3.70E-03	2.77E-02	0.00E+00	-4.87E-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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T10&T13 - ASH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	3,79E-06	1.05E-08	4.71E-09	1.31E-07	0.00E+00	-7.45E-08
IRP ²	[kBq U235 eq.]	6,28E-01	2.52E-04	1.21E-03	5.21E-02	0.00E+00	-7.45E-01
ETP-fw ¹	[CTUe]	2,45E+02	5.08E-01	8.87E-01	5.35E+00	0.00E+00	-1.80E+01
HTP-c ¹	[CTUh]	3,60E-08	2.49E-11	5.76E-11	1.76E-09	0.00E+00	-3.14E-09
HTP-nc ¹	[CTUh]	3,25E-07	1.73E-10	1.27E-09	6.59E-08	0.00E+00	-5.90E-08
SQP ¹	-	1,65E+03	3.58E-02	5.43E-01	4.86E-01	0.00E+00	-4.48E+01
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T10&T13 - ASH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	3,30E+02	3.03E-03	1.41E-02	3.72E-01	0.00E+00	-3.17E+01
PERM	[MJ]	4,89E+01	0.00E+00	0.00E+00	-1.36E+00	0.00E+00	0.00E+00
PERT	[MJ]	3,79E+02	3.03E-03	1.41E-02	-9.85E-01	0.00E+00	3.17E+01
PENRE	[MJ]	1,52E+02	5.32E-01	8.98E-01	2.17E+00	0.00E+00	-1.12E+02
PENRM	[MJ]	3,77E+01	0.00E+00	0.00E+00	-2.89E+01	0.00E+00	0.00E+00
PENRT	[MJ]	1,90E+02	5.32E-01	8.98E-01	-2.67E+01	0.00E+00	1.12E+02
SM	[kg]	2,76E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	8,18E+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 ³]	1,77E+00	1.15E-03	3.68E-03	2.79E-02	0.00E+00	-4.43E-01
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T10&T13 - ASH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	3,51E-01	1.06E-06	1.68E-05	2.35E-02	0.00E+00	-2.87E-03
NHWD	[kg]	1,48E+01	7.61E-04	4.46E-02	3.10E-02	0.00E+00	-2.76E-01
RWD	[kg]	1,81E-04	5.83E-08	2.95E-07	1.33E-05	0.00E+00	-1.75E-04

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	1.14E+01	0.00E+00	0.00E+00
EEE	[MJ]	0,00E+00	0.00E+00	0.00E+00	3.54E+01	0.00E+00	0.00E+00
EET	[MJ]	0,00E+00	0.00E+00	0.00E+00	1.06E+02	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; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

BIOGENIC CARBON CONTENT PER 1 RISE OF T10&T13 - ASH		
Parameter	Unit	At the factory gate
		T10&T13 (Ash)
Biogenic carbon content in product	[kg C]	4.94
Biogenic carbon content in accompanying packagaing	[kg C]	0.89
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂	

T10&T13 Oak - Results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T10&T13 - OAK							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	-8,84E+00	4.06E-02	6.33E-02	1.88E+01	0.00E+00	-7.09E+00
GWP-fossil	[kg CO ₂ eq.]	9,91E+00	4.06E-02	6.32E-02	1.58E-01	0.00E+00	-6.95E+00
GWP-biogenic	[kg CO ₂ eq.]	-1,88E+01	9.32E-06	5.79E-05	1.86E+01	0.00E+00	-1.28E-01
GWP-luluc	[kg CO ₂ eq.]	2,37E-02	4.57E-06	3.12E-05	2.15E-04	0.00E+00	-6.19E-03
ODP	[kg CFC 11 eq.]	2,85E-07	6.46E-10	1.38E-09	3.95E-08	0.00E+00	-2.71E-07
AP	[mol H ⁺ eq.]	5,74E-02	3.76E-04	1.38E-04	9.33E-03	0.00E+00	-1.09E-02
EP-freshwater	[kg P eq.]	1,99E-03	1.25E-06	4.49E-06	9.45E-05	0.00E+00	-1.51E-03
EP-marine	[kg N eq.]	1,63E-02	1.74E-04	3.49E-05	2.61E-03	0.00E+00	-3.17E-03
EP-terrestrial	[mol N eq.]	1,75E-01	1.90E-03	3.54E-04	4.49E-02	0.00E+00	-3.53E-02
POCP	[kg NMVOC eq.]	5,99E-02	5.62E-04	2.14E-04	6.79E-03	0.00E+00	-1.42E-02
ADPm ¹	[kg Sb eq.]	5,46E-05	1.42E-08	2.07E-07	4.28E-07	0.00E+00	-1.03E-05
ADPf ¹	[MJ]	1,83E+02	5.32E-01	8.98E-01	2.16E+00	0.00E+00	-1.06E+02
WDP ¹	[m ³ world eq. deprived]	3,54E+00	1.15E-03	3.70E-03	2.74E-02	0.00E+00	-4.63E-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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T10&T13 - OAK							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	3,65E-06	1.05E-08	4.71E-09	1.25E-07	0.00E+00	-7.10E-08
IRP ²	[kBq U235 eq.]	6,87E-01	2.52E-04	1.21E-03	5.22E-02	0.00E+00	-7.09E-01
ETP-fw ¹	[CTUe]	2,39E+02	5.08E-01	8.87E-01	5.13E+00	0.00E+00	-1.71E+01
HTP-c ¹	[CTUh]	3,56E-08	2.49E-11	5.76E-11	1.68E-09	0.00E+00	-2.99E-09
HTP-nc ¹	[CTUh]	3,17E-07	1.73E-10	1.27E-09	6.29E-08	0.00E+00	-5.62E-08
SQP ¹	-	1,65E+03	3.58E-02	5.43E-01	4.78E-01	0.00E+00	-4.26E+01
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T10&T13 - OAK							
	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	3,29E+02	3.03E-03	1.41E-02	3.73E-01	0.00E+00	-3.02E+01
PERM	[MJ]	4,89E+01	0.00E+00	0.00E+00	-1.36E+00	0.00E+00	0.00E+00
PERT	[MJ]	3,78E+02	3.03E-03	1.41E-02	-9.84E-01	0.00E+00	3.02E+01
PENRE	[MJ]	1,48E+02	5.32E-01	8.98E-01	2.16E+00	0.00E+00	-1.06E+02
PENRM	[MJ]	3,77E+01	0.00E+00	0.00E+00	-2.89E+01	0.00E+00	0.00E+00
PENRT	[MJ]	1,86E+02	5.32E-01	8.98E-01	-2.67E+01	0.00E+00	1.06E+02
SM	[kg]	2,76E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	8,18E+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 ³]	1,84E+00	1.15E-03	3.68E-03	2.76E-02	0.00E+00	-4.22E-01
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T10&T13 - OAK							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	3,49E-01	1.06E-06	1.68E-05	2.24E-02	0.00E+00	-2.73E-03
NHWD	[kg]	1,46E+01	7.61E-04	4.46E-02	3.01E-02	0.00E+00	-2.63E-01
RWD	[kg]	1,96E-04	5.83E-08	2.95E-07	1.34E-05	0.00E+00	-1.67E-04

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	1.15E+01	0.00E+00	0.00E+00
EEE	[MJ]	0,00E+00	0.00E+00	0.00E+00	3.24E+01	0.00E+00	0.00E+00
EET	[MJ]	0,00E+00	0.00E+00	0.00E+00	9.72E+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; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

BIOGENIC CARBON CONTENT PER 1 RISE OF T10&T13 - OAK		
Parameter	Unit	At the factory gate
		T10&T13 (Oak)
Biogenic carbon content in product	[kg C]	4.98
Biogenic carbon content in accompanying packagaing	[kg C]	0.89
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂	

T10&T13 Pine - Results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T10&T13 - PINE							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	-8,46E+00	3.49E-02	5.43E-02	1.61E+01	0.00E+00	-6.32E+00
GWP-fossil	[kg CO ₂ eq.]	7,51E+00	3.49E-02	5.42E-02	1.38E-01	0.00E+00	-6.20E+00
GWP-biogenic	[kg CO ₂ eq.]	-1,60E+01	8.00E-06	4.97E-05	1.60E+01	0.00E+00	-1.14E-01
GWP-luluc	[kg CO ₂ eq.]	1,70E-02	3.92E-06	2.68E-05	1.86E-04	0.00E+00	-5.51E-03
ODP	[kg CFC 11 eq.]	2,15E-07	5.54E-10	1.18E-09	3.52E-08	0.00E+00	-2.42E-07
AP	[mol H ⁺ eq.]	4,62E-02	3.23E-04	1.19E-04	8.30E-03	0.00E+00	-9.71E-03
EP-freshwater	[kg P eq.]	1,38E-03	1.07E-06	3.85E-06	8.19E-05	0.00E+00	-1.35E-03
EP-marine	[kg N eq.]	1,31E-02	1.50E-04	2.99E-05	2.32E-03	0.00E+00	-2.83E-03
EP-terrestrial	[mol N eq.]	1,47E-01	1.63E-03	3.04E-04	4.00E-02	0.00E+00	-3.15E-02
POCP	[kg NMVOC eq.]	4,79E-02	4.82E-04	1.84E-04	6.04E-03	0.00E+00	-1.27E-02
ADPm ¹	[kg Sb eq.]	3,94E-05	1.22E-08	1.77E-07	3.76E-07	0.00E+00	-9.13E-06
ADPf ¹	[MJ]	1,50E+02	4.56E-01	7.70E-01	1.87E+00	0.00E+00	-9.47E+01
WDP ¹	[m ³ world eq. deprived]	2,26E+00	9.84E-04	3.18E-03	2.38E-02	0.00E+00	-4.13E-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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T10&T13 - PINE							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	3,06E-06	9.01E-09	4.04E-09	1.11E-07	0.00E+00	-6.32E-08
IRP ²	[kBq U235 eq.]	9,77E-01	2.17E-04	1.04E-03	4.49E-02	0.00E+00	-6.32E-01
ETP-fw ¹	[CTUe]	9,93E+01	4.36E-01	7.62E-01	4.55E+00	0.00E+00	-1.52E+01
HTP-c ¹	[CTUh]	1,19E-08	2.14E-11	4.94E-11	1.50E-09	0.00E+00	-2.67E-09
HTP-nc ¹	[CTUh]	2,36E-07	1.48E-10	1.09E-09	5.60E-08	0.00E+00	-5.01E-08
SQP ¹	-	1,66E+03	3.07E-02	4.66E-01	4.17E-01	0.00E+00	-3.80E+01
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T10&T13 - PINE							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	2,94E+02	2.60E-03	1.21E-02	3.21E-01	0.00E+00	-2.69E+01
PERM	[MJ]	4,88E+01	0.00E+00	0.00E+00	-1.35E+00	0.00E+00	0.00E+00
PERT	[MJ]	3,43E+02	2.60E-03	1.21E-02	-1.03E+00	0.00E+00	2.69E+01
PENRE	[MJ]	1,15E+02	4.56E-01	7.70E-01	1.87E+00	0.00E+00	-9.47E+01
PENRM	[MJ]	3,77E+01	0.00E+00	0.00E+00	-2.89E+01	0.00E+00	0.00E+00
PENRT	[MJ]	1,53E+02	4.56E-01	7.70E-01	-2.70E+01	0.00E+00	9.47E+01
SM	[kg]	2,76E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	8,18E+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 ³]	5,76E-01	9.90E-04	3.16E-03	2.40E-02	0.00E+00	-3.76E-01
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T10&T13 - PINE							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	3,44E-01	9.09E-07	1.44E-05	2.00E-02	0.00E+00	-2.43E-03
NHWD	[kg]	1,38E+01	6.53E-04	3.83E-02	2.65E-02	0.00E+00	-2.34E-01
RWD	[kg]	2,51E-04	5.00E-08	2.53E-07	1.15E-05	0.00E+00	-1.49E-04

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	9.78E+00	0.00E+00	0.00E+00
EEE	[MJ]	0,00E+00	0.00E+00	0.00E+00	3.05E+01	0.00E+00	0.00E+00
EET	[MJ]	0,00E+00	0.00E+00	0.00E+00	9.16E+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; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

BIOGENIC CARBON CONTENT PER 1 RISE OF T10&T13 - PINE		
Parameter	Unit	At the factory gate
		T10&T13 (Pine)
Biogenic carbon content in product	[kg C]	4.22
Biogenic carbon content in accompanying packagaing	[kg C]	0.89
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂	

T11-12&T14 Ash - Results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T11-12&T14 - ASH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	-1,02E+01	4.97E-02	7.75E-02	2.30E+01	0.00E+00	-9.12E+00
GWP-fossil	[kg CO ₂ eq.]	1,26E+01	4.97E-02	7.74E-02	1.97E-01	0.00E+00	-8.95E+00
GWP-biogenic	[kg CO ₂ eq.]	-2,28E+01	1.14E-05	7.09E-05	2.28E+01	0.00E+00	-1.65E-01
GWP-luluc	[kg CO ₂ eq.]	3,24E-02	5.60E-06	3.82E-05	2.63E-04	0.00E+00	-7.96E-03
ODP	[kg CFC 11 eq.]	3,53E-07	7.91E-10	1.68E-09	5.08E-08	0.00E+00	-3.49E-07
AP	[mol H ⁺ eq.]	8,18E-02	4.61E-04	1.69E-04	1.20E-02	0.00E+00	-1.40E-02
EP-freshwater	[kg P eq.]	2,51E-03	1.53E-06	5.50E-06	1.17E-04	0.00E+00	-1.94E-03
EP-marine	[kg N eq.]	2,31E-02	2.14E-04	4.27E-05	3.35E-03	0.00E+00	-4.08E-03
EP-terrestrial	[mol N eq.]	2,49E-01	2.32E-03	4.34E-04	5.77E-02	0.00E+00	-4.54E-02
POCP	[kg NMVOC eq.]	8,28E-02	6.88E-04	2.63E-04	8.72E-03	0.00E+00	-1.83E-02
ADPm ¹	[kg Sb eq.]	7,06E-05	1.74E-08	2.53E-07	5.38E-07	0.00E+00	-1.32E-05
ADPf ¹	[MJ]	2,27E+02	6.51E-01	1.10E+00	2.66E+00	0.00E+00	-1.37E+02
WDP ¹	[m ³ world eq. deprived]	4,60E+00	1.40E-03	4.53E-03	3.39E-02	0.00E+00	-5.96E-01
Caption	GWP-total = Global 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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T11-12&T14 - ASH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	4,68E-06	1.29E-08	5.77E-09	1.61E-07	0.00E+00	-9.14E-08
IRP ²	[kBq U235 eq.]	8,53E-01	3.09E-04	1.49E-03	6.37E-02	0.00E+00	-9.13E-01
ETP-fw ¹	[CTUe]	3,08E+02	6.22E-01	1.09E+00	6.56E+00	0.00E+00	-2.20E+01
HTP-c ¹	[CTUh]	4,59E-08	3.05E-11	7.05E-11	2.16E-09	0.00E+00	-3.85E-09
HTP-nc ¹	[CTUh]	4,01E-07	2.12E-10	1.56E-09	8.08E-08	0.00E+00	-7.24E-08
SQP ¹	-	2,09E+03	4.39E-02	6.64E-01	5.95E-01	0.00E+00	-5.49E+01
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T11-12&T14 - ASH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	4,11E+02	3.70E-03	1.73E-02	4.55E-01	0.00E+00	-3.89E+01
PERM	[MJ]	5,84E+01	0.00E+00	0.00E+00	-1.43E+00	0.00E+00	0.00E+00
PERT	[MJ]	4,69E+02	3.70E-03	1.73E-02	-9.77E-01	0.00E+00	3.89E+01
PENRE	[MJ]	1,88E+02	6.51E-01	1.10E+00	2.65E+00	0.00E+00	-1.37E+02
PENRM	[MJ]	4,77E+01	0.00E+00	0.00E+00	-3.70E+01	0.00E+00	0.00E+00
PENRT	[MJ]	2,36E+02	6.51E-01	1.10E+00	-3.44E+01	0.00E+00	1.37E+02
SM	[kg]	3,92E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	8,90E+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 ³]	2,21E+00	1.41E-03	4.51E-03	3.42E-02	0.00E+00	-5.43E-01
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T11-12&T14 - ASH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	4,28E-01	1.30E-06	2.05E-05	2.88E-02	0.00E+00	-3.51E-03
NHWD	[kg]	1,79E+01	9.32E-04	5.46E-02	3.80E-02	0.00E+00	-3.38E-01
RWD	[kg]	2,37E-04	7.13E-08	3.61E-07	1.63E-05	0.00E+00	-2.15E-04

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	1.40E+01	0.00E+00	0.00E+00
EEE	[MJ]	0,00E+00	0.00E+00	0.00E+00	4.33E+01	0.00E+00	0.00E+00
EET	[MJ]	0,00E+00	0.00E+00	0.00E+00	1.30E+02	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; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

BIOGENIC CARBON CONTENT PER 1 RISE OF T11-12&T14 - ASH		
Parameter	Unit	At the factory gate
		T11-12&T14 (Ash)
Biogenic carbon content in product	[kg C]	6.06
Biogenic carbon content in accompanying packagaing	[kg C]	0.89
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂	

T11-12&T14 Oak - Results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T11-12&T14 - OAK							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	-1,07E+01	4.97E-02	7.75E-02	2.31E+01	0.00E+00	-8.79E+00
GWP-fossil	[kg CO ₂ eq.]	1,22E+01	4.97E-02	7.74E-02	1.94E-01	0.00E+00	-8.62E+00
GWP-biogenic	[kg CO ₂ eq.]	-2,29E+01	1.14E-05	7.09E-05	2.29E+01	0.00E+00	-1.59E-01
GWP-luluc	[kg CO ₂ eq.]	2,83E-02	5.60E-06	3.82E-05	2.65E-04	0.00E+00	-7.67E-03
ODP	[kg CFC 11 eq.]	3,49E-07	7.91E-10	1.68E-09	4.90E-08	0.00E+00	-3.37E-07
AP	[mol H ⁺ eq.]	7,16E-02	4.61E-04	1.69E-04	1.16E-02	0.00E+00	-1.35E-02
EP-freshwater	[kg P eq.]	2,59E-03	1.53E-06	5.50E-06	1.16E-04	0.00E+00	-1.87E-03
EP-marine	[kg N eq.]	2,04E-02	2.14E-04	4.27E-05	3.24E-03	0.00E+00	-3.93E-03
EP-terrestrial	[mol N eq.]	2,18E-01	2.32E-03	4.34E-04	5.57E-02	0.00E+00	-4.38E-02
POCP	[kg NMVOC eq.]	7,44E-02	6.88E-04	2.63E-04	8.41E-03	0.00E+00	-1.77E-02
ADPm ¹	[kg Sb eq.]	6,97E-05	1.74E-08	2.53E-07	5.29E-07	0.00E+00	-1.27E-05
ADPf ¹	[MJ]	2,23E+02	6.51E-01	1.10E+00	2.66E+00	0.00E+00	-1.32E+02
WDP ¹	[m ³ world eq. deprived]	4,63E+00	1.40E-03	4.53E-03	3.37E-02	0.00E+00	-5.75E-01
Caption	GWP-total = Global 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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T11-12&T14 - OAK							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	4,54E-06	1.29E-08	5.77E-09	1.55E-07	0.00E+00	-8.80E-08
IRP ²	[kBq U235 eq.]	9,19E-01	3.09E-04	1.49E-03	6.41E-02	0.00E+00	-8.80E-01
ETP-fw ¹	[CTUe]	3,01E+02	6.22E-01	1.09E+00	6.35E+00	0.00E+00	-2.12E+01
HTP-c ¹	[CTUh]	4,54E-08	3.05E-11	7.05E-11	2.09E-09	0.00E+00	-3.71E-09
HTP-nc ¹	[CTUh]	3,93E-07	2.12E-10	1.56E-09	7.79E-08	0.00E+00	-6.97E-08
SQP ¹	-	2,08E+03	4.39E-02	6.64E-01	5.89E-01	0.00E+00	-5.29E+01
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T11-12&T14 - OAK							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	4,10E+02	3.70E-03	1.73E-02	4.58E-01	0.00E+00	-3.74E+01
PERM	[MJ]	5,84E+01	0.00E+00	0.00E+00	-1.43E+00	0.00E+00	0.00E+00
PERT	[MJ]	4,68E+02	3.70E-03	1.73E-02	-9.74E-01	0.00E+00	3.74E+01
PENRE	[MJ]	1,84E+02	6.51E-01	1.10E+00	2.66E+00	0.00E+00	-1.32E+02
PENRM	[MJ]	4,77E+01	0.00E+00	0.00E+00	-3.70E+01	0.00E+00	0.00E+00
PENRT	[MJ]	2,32E+02	6.51E-01	1.10E+00	-3.44E+01	0.00E+00	1.32E+02
SM	[kg]	3,92E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	8,90E+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 ³]	2,29E+00	1.41E-03	4.51E-03	3.40E-02	0.00E+00	-5.23E-01
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T11-12&T14 - OAK							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	4,27E-01	1.30E-06	2.05E-05	2.78E-02	0.00E+00	-3.39E-03
NHWD	[kg]	1,77E+01	9.32E-04	5.46E-02	3.72E-02	0.00E+00	-3.26E-01
RWD	[kg]	2,53E-04	7.13E-08	3.61E-07	1.64E-05	0.00E+00	-2.07E-04

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	1.41E+01	0.00E+00	0.00E+00
EEE	[MJ]	0,00E+00	0.00E+00	0.00E+00	3.96E+01	0.00E+00	0.00E+00
EET	[MJ]	0,00E+00	0.00E+00	0.00E+00	1.19E+02	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; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

BIOGENIC CARBON CONTENT PER 1 RISE OF T11-12&T14 - OAK		
Parameter	Unit	At the factory gate
		T11-12&T14 (Oak)
Biogenic carbon content in product	[kg C]	6.10
Biogenic carbon content in accompanying packagaing	[kg C]	0.89
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂	

T11-12&T14 Pine - Results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T11-12&T14 - PINE							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	-1,05E+01	4.33E-02	6.74E-02	2.00E+01	0.00E+00	-7.86E+00
GWP-fossil	[kg CO ₂ eq.]	9,30E+00	4.33E-02	6.73E-02	1.71E-01	0.00E+00	-7.71E+00
GWP-biogenic	[kg CO ₂ eq.]	-1,98E+01	9.93E-06	6.17E-05	1.98E+01	0.00E+00	-1.43E-01
GWP-luluc	[kg CO ₂ eq.]	2,07E-02	4.87E-06	3.32E-05	2.30E-04	0.00E+00	-6.86E-03
ODP	[kg CFC 11 eq.]	2,61E-07	6.88E-10	1.47E-09	4.38E-08	0.00E+00	-3.01E-07
AP	[mol H ⁺ eq.]	5,78E-02	4.01E-04	1.47E-04	1.03E-02	0.00E+00	-1.21E-02
EP-freshwater	[kg P eq.]	1,85E-03	1.33E-06	4.78E-06	1.02E-04	0.00E+00	-1.68E-03
EP-marine	[kg N eq.]	1,64E-02	1.86E-04	3.71E-05	2.89E-03	0.00E+00	-3.52E-03
EP-terrestrial	[mol N eq.]	1,84E-01	2.02E-03	3.77E-04	4.98E-02	0.00E+00	-3.92E-02
POCP	[kg NMVOC eq.]	6,01E-02	5.98E-04	2.28E-04	7.52E-03	0.00E+00	-1.58E-02
ADPm ¹	[kg Sb eq.]	5,06E-05	1.51E-08	2.20E-07	4.67E-07	0.00E+00	-1.14E-05
ADPf ¹	[MJ]	1,82E+02	5.67E-01	9.56E-01	2.32E+00	0.00E+00	-1.18E+02
WDP ¹	[m ³ world eq. deprived]	3,04E+00	1.22E-03	3.94E-03	2.96E-02	0.00E+00	-5.14E-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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T11-12&T14 - PINE							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	3,84E-06	1.12E-08	5.02E-09	1.39E-07	0.00E+00	-7.87E-08
IRP ²	[kBq U235 eq.]	1,24E+00	2.69E-04	1.29E-03	5.57E-02	0.00E+00	-7.87E-01
ETP-fw ¹	[CTUe]	1,22E+02	5.42E-01	9.45E-01	5.66E+00	0.00E+00	-1.90E+01
HTP-c ¹	[CTUh]	1,47E-08	2.65E-11	6.14E-11	1.86E-09	0.00E+00	-3.32E-09
HTP-nc ¹	[CTUh]	2,93E-07	1.84E-10	1.36E-09	6.97E-08	0.00E+00	-6.24E-08
SQP ¹	-	2,10E+03	3.82E-02	5.78E-01	5.17E-01	0.00E+00	-4.73E+01
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T11-12&T14 - PINE							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	3,71E+02	3.22E-03	1.50E-02	3.98E-01	0.00E+00	-3.35E+01
PERM	[MJ]	5,84E+01	0.00E+00	0.00E+00	-1.42E+00	0.00E+00	0.00E+00
PERT	[MJ]	4,29E+02	3.22E-03	1.50E-02	-1.02E+00	0.00E+00	3.35E+01
PENRE	[MJ]	1,43E+02	5.67E-01	9.56E-01	2.32E+00	0.00E+00	-1.18E+02
PENRM	[MJ]	4,77E+01	0.00E+00	0.00E+00	-3.70E+01	0.00E+00	0.00E+00
PENRT	[MJ]	1,91E+02	5.67E-01	9.56E-01	-3.47E+01	0.00E+00	1.18E+02
SM	[kg]	3,92E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	8,90E+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 ³]	7,07E-01	1.23E-03	3.93E-03	2.98E-02	0.00E+00	-4.68E-01
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T11-12&T14 - PINE							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	4,21E-01	1.13E-06	1.79E-05	2.48E-02	0.00E+00	-3.03E-03
NHWD	[kg]	1,68E+01	8.11E-04	4.75E-02	3.29E-02	0.00E+00	-2.91E-01
RWD	[kg]	3,13E-04	6.21E-08	3.14E-07	1.43E-05	0.00E+00	-1.85E-04

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	1.21E+01	0.00E+00	0.00E+00
EEE	[MJ]	0,00E+00	0.00E+00	0.00E+00	3.79E+01	0.00E+00	0.00E+00
EET	[MJ]	0,00E+00	0.00E+00	0.00E+00	1.14E+02	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; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

BIOGENIC CARBON CONTENT PER 1 RISE OF T11-12&T14 - PINE		
Parameter	Unit	At the factory gate
		T11-12&T14 (Pine)
Biogenic carbon content in product	[kg C]	5.25
Biogenic carbon content in accompanying packagaing	[kg C]	0.89
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂	

T15 Ash - Results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T15 - ASH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	-1,20E+01	5.93E-02	9.24E-02	2.74E+01	0.00E+00	-1.09E+01
GWP-fossil	[kg CO ₂ eq.]	1,51E+01	5.93E-02	9.23E-02	2.35E-01	0.00E+00	-1.07E+01
GWP-biogenic	[kg CO ₂ eq.]	-2,71E+01	1.36E-05	8.45E-05	2.71E+01	0.00E+00	-1.97E-01
GWP-luluc	[kg CO ₂ eq.]	3,67E-02	6.68E-06	4.56E-05	3.14E-04	0.00E+00	-9.49E-03
ODP	[kg CFC 11 eq.]	4,26E-07	9.43E-10	2.01E-09	6.05E-08	0.00E+00	-4.16E-07
AP	[mol H ⁺ eq.]	9,82E-02	5.50E-04	2.02E-04	1.43E-02	0.00E+00	-1.67E-02
EP-freshwater	[kg P eq.]	3,26E-03	1.82E-06	6.56E-06	1.39E-04	0.00E+00	-2.32E-03
EP-marine	[kg N eq.]	2,76E-02	2.55E-04	5.09E-05	4.00E-03	0.00E+00	-4.86E-03
EP-terrestrial	[mol N eq.]	2,97E-01	2.77E-03	5.17E-04	6.88E-02	0.00E+00	-5.41E-02
POCP	[kg NMVOC eq.]	9,89E-02	8.20E-04	3.13E-04	1.04E-02	0.00E+00	-2.18E-02
ADPm ¹	[kg Sb eq.]	8,89E-05	2.07E-08	3.02E-07	6.42E-07	0.00E+00	-1.57E-05
ADPf ¹	[MJ]	2,73E+02	7.77E-01	1.31E+00	3.16E+00	0.00E+00	-1.63E+02
WDP ¹	[m ³ world eq. deprived]	6,03E+00	1.67E-03	5.40E-03	4.04E-02	0.00E+00	-7.11E-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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T15 - ASH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	5,61E-06	1.53E-08	6.88E-09	1.92E-07	0.00E+00	-1.09E-07
IRP ²	[kBq U235 eq.]	1,16E+00	3.69E-04	1.77E-03	7.59E-02	0.00E+00	-1.09E+00
ETP-fw ¹	[CTUe]	3,80E+02	7.42E-01	1.30E+00	7.82E+00	0.00E+00	-2.62E+01
HTP-c ¹	[CTUh]	5,73E-08	3.63E-11	8.41E-11	2.57E-09	0.00E+00	-4.59E-09
HTP-nc ¹	[CTUh]	4,83E-07	2.53E-10	1.86E-09	9.63E-08	0.00E+00	-8.63E-08
SQP ¹	-	2,58E+03	5.23E-02	7.92E-01	7.09E-01	0.00E+00	-6.54E+01
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T15 - ASH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	4,97E+02	4.42E-03	2.06E-02	5.42E-01	0.00E+00	-4.63E+01
PERM	[MJ]	7,09E+01	0.00E+00	0.00E+00	-1.52E+00	0.00E+00	0.00E+00
PERT	[MJ]	5,67E+02	4.42E-03	2.06E-02	-9.73E-01	0.00E+00	4.63E+01
PENRE	[MJ]	2,30E+02	7.77E-01	1.31E+00	3.16E+00	0.00E+00	-1.63E+02
PENRM	[MJ]	5,95E+01	0.00E+00	0.00E+00	-4.64E+01	0.00E+00	0.00E+00
PENRT	[MJ]	2,89E+02	7.77E-01	1.31E+00	-4.32E+01	0.00E+00	1.63E+02
SM	[kg]	5,66E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	9,51E+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 ³]	2,69E+00	1.69E-03	5.38E-03	4.07E-02	0.00E+00	-6.47E-01
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T15 - ASH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	5,29E-01	1.55E-06	2.45E-05	3.44E-02	0.00E+00	-4.19E-03
NHWD	[kg]	2,18E+01	1.11E-03	6.51E-02	4.53E-02	0.00E+00	-4.03E-01
RWD	[kg]	3,12E-04	8.51E-08	4.31E-07	1.94E-05	0.00E+00	-2.56E-04

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	1.67E+01	0.00E+00	0.00E+00
EEE	[MJ]	0,00E+00	0.00E+00	0.00E+00	5.17E+01	0.00E+00	0.00E+00
EET	[MJ]	0,00E+00	0.00E+00	0.00E+00	1.55E+02	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; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

BIOGENIC CARBON CONTENT PER 1 RISE OF T15 - ASH		
Parameter	Unit	At the factory gate
		T15 (Ash)
Biogenic carbon content in product	[kg C]	7.24
Biogenic carbon content in accompanying packagaing	[kg C]	0.89
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂	

T15 Oak - Results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T15 - OAK							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	-1,25E+01	5.93E-02	9.24E-02	2.75E+01	0.00E+00	-1.05E+01
GWP-fossil	[kg CO ₂ eq.]	1,48E+01	5.93E-02	9.23E-02	2.33E-01	0.00E+00	-1.03E+01
GWP-biogenic	[kg CO ₂ eq.]	-2,73E+01	1.36E-05	8.45E-05	2.73E+01	0.00E+00	-1.91E-01
GWP-luluc	[kg CO ₂ eq.]	3,26E-02	6.68E-06	4.56E-05	3.16E-04	0.00E+00	-9.20E-03
ODP	[kg CFC 11 eq.]	4,22E-07	9.43E-10	2.01E-09	5.88E-08	0.00E+00	-4.04E-07
AP	[mol H ⁺ eq.]	8,80E-02	5.50E-04	2.02E-04	1.39E-02	0.00E+00	-1.62E-02
EP-freshwater	[kg P eq.]	3,34E-03	1.82E-06	6.56E-06	1.39E-04	0.00E+00	-2.25E-03
EP-marine	[kg N eq.]	2,49E-02	2.55E-04	5.09E-05	3.88E-03	0.00E+00	-4.72E-03
EP-terrestrial	[mol N eq.]	2,67E-01	2.77E-03	5.17E-04	6.68E-02	0.00E+00	-5.25E-02
POCP	[kg NMVOC eq.]	9,06E-02	8.20E-04	3.13E-04	1.01E-02	0.00E+00	-2.12E-02
ADPm ¹	[kg Sb eq.]	8,80E-05	2.07E-08	3.02E-07	6.33E-07	0.00E+00	-1.52E-05
ADPf ¹	[MJ]	2,69E+02	7.77E-01	1.31E+00	3.18E+00	0.00E+00	-1.58E+02
WDP ¹	[m ³ world eq. deprived]	6,06E+00	1.67E-03	5.40E-03	4.04E-02	0.00E+00	-6.89E-01
Caption	GWP-total = Global 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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T15 - OAK							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	5,47E-06	1.53E-08	6.88E-09	1.86E-07	0.00E+00	-1.06E-07
IRP ²	[kBq U235 eq.]	1,23E+00	3.69E-04	1.77E-03	7.67E-02	0.00E+00	-1.05E+00
ETP-fw ¹	[CTUe]	3,73E+02	7.42E-01	1.30E+00	7.61E+00	0.00E+00	-2.54E+01
HTP-c ¹	[CTUh]	5,68E-08	3.63E-11	8.41E-11	2.50E-09	0.00E+00	-4.45E-09
HTP-nc ¹	[CTUh]	4,74E-07	2.53E-10	1.86E-09	9.34E-08	0.00E+00	-8.36E-08
SQP ¹	-	2,57E+03	5.23E-02	7.92E-01	7.05E-01	0.00E+00	-6.34E+01
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T15 - OAK							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	4,96E+02	4.42E-03	2.06E-02	5.47E-01	0.00E+00	-4.49E+01
PERM	[MJ]	7,09E+01	0.00E+00	0.00E+00	-1.52E+00	0.00E+00	0.00E+00
PERT	[MJ]	5,67E+02	4.42E-03	2.06E-02	-9.68E-01	0.00E+00	4.49E+01
PENRE	[MJ]	2,26E+02	7.77E-01	1.31E+00	3.18E+00	0.00E+00	-1.58E+02
PENRM	[MJ]	5,95E+01	0.00E+00	0.00E+00	-4.64E+01	0.00E+00	0.00E+00
PENRT	[MJ]	2,85E+02	7.77E-01	1.31E+00	-4.32E+01	0.00E+00	1.58E+02
SM	[kg]	5,66E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	9,51E+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 ³]	2,76E+00	1.69E-03	5.38E-03	4.06E-02	0.00E+00	-6.27E-01
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T15 - OAK							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	5,27E-01	1.55E-06	2.45E-05	3.33E-02	0.00E+00	-4.06E-03
NHWD	[kg]	2,17E+01	1.11E-03	6.51E-02	4.46E-02	0.00E+00	-3.91E-01
RWD	[kg]	3,29E-04	8.51E-08	4.31E-07	1.96E-05	0.00E+00	-2.48E-04

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	1.67E+01	0.00E+00	0.00E+00
EEE	[MJ]	0,00E+00	0.00E+00	0.00E+00	4.72E+01	0.00E+00	0.00E+00
EET	[MJ]	0,00E+00	0.00E+00	0.00E+00	1.42E+02	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; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

BIOGENIC CARBON CONTENT PER 1 RISE OF T15 - OAK		
Parameter	Unit	At the factory gate
		T15 (OAK)
Biogenic carbon content in product	[kg C]	7.28
Biogenic carbon content in accompanying packagaing	[kg C]	0.89
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂	

T15 Pine - Results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T15 - PINE							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	-1,27E+01	5.29E-02	8.24E-02	2.44E+01	0.00E+00	-9.62E+00
GWP-fossil	[kg CO ₂ eq.]	1,15E+01	5.29E-02	8.23E-02	2.09E-01	0.00E+00	-9.44E+00
GWP-biogenic	[kg CO ₂ eq.]	-2,42E+01	1.21E-05	7.54E-05	2.42E+01	0.00E+00	-1.74E-01
GWP-luluc	[kg CO ₂ eq.]	2,48E-02	5.95E-06	4.06E-05	2.81E-04	0.00E+00	-8.39E-03
ODP	[kg CFC 11 eq.]	3,17E-07	8.41E-10	1.79E-09	5.36E-08	0.00E+00	-3.68E-07
AP	[mol H ⁺ eq.]	7,20E-02	4.90E-04	1.80E-04	1.26E-02	0.00E+00	-1.48E-02
EP-freshwater	[kg P eq.]	2,51E-03	1.62E-06	5.85E-06	1.24E-04	0.00E+00	-2.05E-03
EP-marine	[kg N eq.]	2,03E-02	2.27E-04	4.54E-05	3.54E-03	0.00E+00	-4.30E-03
EP-terrestrial	[mol N eq.]	2,29E-01	2.47E-03	4.61E-04	6.09E-02	0.00E+00	-4.79E-02
POCP	[kg NMVOC eq.]	7,46E-02	7.32E-04	2.79E-04	9.20E-03	0.00E+00	-1.93E-02
ADPm ¹	[kg Sb eq.]	6,46E-05	1.85E-08	2.69E-07	5.71E-07	0.00E+00	-1.39E-05
ADPf ¹	[MJ]	2,20E+02	6.93E-01	1.17E+00	2.83E+00	0.00E+00	-1.44E+02
WDP ¹	[m ³ world eq. deprived]	4,13E+00	1.49E-03	4.82E-03	3.61E-02	0.00E+00	-6.29E-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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T15 - PINE							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	4,73E-06	1.37E-08	6.13E-09	1.70E-07	0.00E+00	-9.63E-08
IRP ²	[kBq U235 eq.]	1,53E+00	3.29E-04	1.58E-03	6.80E-02	0.00E+00	-9.62E-01
ETP-fw ¹	[CTUe]	1,49E+02	6.62E-01	1.16E+00	6.93E+00	0.00E+00	-2.32E+01
HTP-c ¹	[CTUh]	1,80E-08	3.24E-11	7.50E-11	2.28E-09	0.00E+00	-4.06E-09
HTP-nc ¹	[CTUh]	3,59E-07	2.25E-10	1.66E-09	8.52E-08	0.00E+00	-7.63E-08
SQP ¹	-	2,59E+03	4.67E-02	7.07E-01	6.32E-01	0.00E+00	-5.78E+01
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T15 - PINE							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	4,56E+02	3.94E-03	1.84E-02	4.86E-01	0.00E+00	-4.10E+01
PERM	[MJ]	7,09E+01	0.00E+00	0.00E+00	-1.50E+00	0.00E+00	0.00E+00
PERT	[MJ]	5,26E+02	3.94E-03	1.84E-02	-1.02E+00	0.00E+00	4.10E+01
PENRE	[MJ]	1,77E+02	6.93E-01	1.17E+00	2.83E+00	0.00E+00	-1.44E+02
PENRM	[MJ]	5,95E+01	0.00E+00	0.00E+00	-4.64E+01	0.00E+00	0.00E+00
PENRT	[MJ]	2,37E+02	6.93E-01	1.17E+00	-4.36E+01	0.00E+00	1.44E+02
SM	[kg]	5,66E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	9,51E+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 ³]	8,57E-01	1.50E-03	4.80E-03	3.64E-02	0.00E+00	-5.72E-01
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T15 - PINE							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	5,21E-01	1.38E-06	2.18E-05	3.04E-02	0.00E+00	-3.70E-03
NHWD	[kg]	2,07E+01	9.91E-04	5.81E-02	4.03E-02	0.00E+00	-3.56E-01
RWD	[kg]	3,84E-04	7.59E-08	3.84E-07	1.74E-05	0.00E+00	-2.26E-04

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	1.48E+01	0.00E+00	0.00E+00
EEE	[MJ]	0,00E+00	0.00E+00	0.00E+00	4.63E+01	0.00E+00	0.00E+00
EET	[MJ]	0,00E+00	0.00E+00	0.00E+00	1.39E+02	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; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

BIOGENIC CARBON CONTENT PER 1 RISE OF T15 - PINE		
Parameter	Unit	At the factory gate
		T15 (PINE)
Biogenic carbon content in product	[kg C]	6.43
Biogenic carbon content in accompanying packagaing	[kg C]	0.89
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂	

Additional information

The following datasets for surface treatments can be added onto to the staircase results by simple addition. However, this must be done before the conversion factor to kg. is applied. Furthermore, if the datasets are utilized the following conversion factors must be, thus replacing the conversion factors from section: **Declared unit**.

Declared staircases	Conversion factor to kg. (With paint and varnish)	Conversion factor to kg. (With wood oil)
Oak T10 & T13	12.08	11.55
Ash T10 & T13	12.00	11.47
Pine T10 & T13	10.38	9.85
Oak T11, T12 & T14	14.87	14.13
Ash T11, T12 & T14	14.78	14.03
Pine T11, T12 & T14	12.97	12.22
Oak T15	17.87	16.82
Ash T15	17.77	16.73
Pine T15	15.97	14.93

T10&T13 - Paint and Varnish - Additional results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T10&T13 - PAINT & VARNISH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	4.98E+00	0.00E+00	5.16E-03	2.20E+00	9.01E-03	0.00E+00
GWP-fossil	[kg CO ₂ eq.]	3.84E+00	0.00E+00	5.15E-03	2.20E+00	8.86E-03	0.00E+00
GWP-biogenic	[kg CO ₂ eq.]	0.00E+00	0.00E+00	4.72E-06	0.00E+00	1.41E-04	0.00E+00
GWP-luluc	[kg CO ₂ eq.]	1.13E+00	0.00E+00	2.55E-06	0.00E+00	2.05E-06	0.00E+00
ODP	[kg CFC 11 eq.]	1.14E-07	0.00E+00	1.12E-10	0.00E+00	4.83E-11	0.00E+00
AP	[mol H ⁺ eq.]	5.78E-02	0.00E+00	1.13E-05	0.00E+00	2.17E-05	0.00E+00
EP-freshwater	[kg P eq.]	2.48E-03	0.00E+00	3.66E-07	0.00E+00	2.46E-06	0.00E+00
EP-marine	[kg N eq.]	7.83E-03	0.00E+00	2.84E-06	0.00E+00	6.42E-06	0.00E+00
EP-terrestrial	[mol N eq.]	5.56E-02	0.00E+00	2.89E-05	0.00E+00	7.13E-05	0.00E+00
POCP	[kg NMVOC eq.]	2.03E-02	0.00E+00	1.75E-05	5.12E-07	2.10E-05	0.00E+00
ADPm ¹	[kg Sb eq.]	1.47E-03	0.00E+00	1.69E-08	0.00E+00	1.03E-08	0.00E+00
ADPf ¹	[MJ]	5.66E+01	0.00E+00	7.32E-02	0.00E+00	4.64E-02	0.00E+00
WDP ¹	[m ³ world eq. deprived]	2.46E+00	0.00E+00	3.02E-04	0.00E+00	9.24E-04	0.00E+00
Caption	<p>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 depletion potential</p> <p>The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10² or 195, while 1,12E-11 is the same as 1,12*10⁻¹¹ or 0,0000000000112.</p>						

Disclaimer	¹ 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.
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ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T10&T13 - PAINT & VARNISH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	3.31E-07	0.00E+00	3.84E-10	0.00E+00	1.74E-10	0.00E+00
IRP ²	[kBq U235 eq.]	4.47E-01	0.00E+00	9.91E-05	0.00E+00	3.08E-04	0.00E+00
ETP-fw ¹	[CTUe]	2.46E+02	0.00E+00	7.24E-02	6.70E+00	4.55E-02	0.00E+00
HTP-c ¹	[CTUh]	7.17E-09	0.00E+00	4.70E-12	1.23E-08	1.67E-11	0.00E+00
HTP-nc ¹	[CTUh]	1.89E-07	0.00E+00	1.04E-10	1.41E-08	5.92E-10	0.00E+00
SQP ¹	-	7.16E+01	0.00E+00	4.43E-02	0.00E+00	3.66E-02	0.00E+00
Caption	<p>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; SQP = Soil Quality (dimensionless)</p> <p>The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10² or 195, while 1,12E-11 is the same as 1,12*10⁻¹¹ or 0,0000000000112.</p>						
Disclaimers	<p>¹ 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.</p> <p>² 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.</p>						

RESOURCE USE PER 1 RISE OF T10&T13 - PAINT & VARNISH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	1.61E+01	0.00E+00	1.15E-03	0.00E+00	2.52E-03	0.00E+00
PERM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	1.61E+01	0.00E+00	1.15E-03	0.00E+00	2.52E-03	0.00E+00
PENRE	[MJ]	5.74E+01	0.00E+00	7.32E-02	0.00E+00	4.64E-02	0.00E+00
PENRM	[MJ]	8.22E+00	0.00E+00	0.00E+00	-8.22E+00	0.00E+00	0.00E+00
PENRT	[MJ]	6.56E+01	0.00E+00	7.32E-02	-8.22E+00	4.64E-02	0.00E+00
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 ³]	2.35E+00	0.00E+00	3.01E-04	0.00E+00	9.08E-04	0.00E+00

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
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T10&T13 - PAINT & VARNISH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	1.52E-02	0.00E+00	1.37E-06	0.00E+00	8.86E-07	0.00E+00
NHWD	[kg]	2.02E+00	0.00E+00	3.64E-03	0.00E+00	2.80E-02	0.00E+00
RWD	[kg]	1.08E-04	0.00E+00	2.41E-08	0.00E+00	7.84E-08	0.00E+00

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	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	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; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

T10&T13 – Wood Oil – Additional results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T10&T13 - WOOD OIL							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	8.96E-01	0.00E+00	6.11E-04	2.60E-01	1.07E-03	0.00E+00
GWP-fossil	[kg CO ₂ eq.]	4.78E-01	0.00E+00	6.10E-04	2.60E-01	1.05E-03	0.00E+00
GWP-biogenic	[kg CO ₂ eq.]	0.00E+00	0.00E+00	5.59E-07	0.00E+00	1.67E-05	0.00E+00
GWP-luluc	[kg CO ₂ eq.]	4.17E-01	0.00E+00	3.01E-07	0.00E+00	2.43E-07	0.00E+00
ODP	[kg CFC 11 eq.]	1.24E-08	0.00E+00	1.33E-11	0.00E+00	5.71E-12	0.00E+00
AP	[mol H ⁺ eq.]	3.66E-03	0.00E+00	1.33E-06	0.00E+00	2.56E-06	0.00E+00
EP-freshwater	[kg P eq.]	4.74E-04	0.00E+00	4.33E-08	0.00E+00	2.91E-07	0.00E+00
EP-marine	[kg N eq.]	1.80E-03	0.00E+00	3.36E-07	0.00E+00	7.59E-07	0.00E+00
EP-terrestrial	[mol N eq.]	9.91E-03	0.00E+00	3.42E-06	0.00E+00	8.44E-06	0.00E+00
POCP	[kg NMVOC eq.]	2.95E-03	0.00E+00	2.07E-06	6.06E-08	2.49E-06	0.00E+00
ADPm ¹	[kg Sb eq.]	4.03E-04	0.00E+00	1.99E-09	0.00E+00	1.22E-09	0.00E+00
ADPf ¹	[MJ]	7.30E+00	0.00E+00	8.66E-03	0.00E+00	5.49E-03	0.00E+00
WDP ¹	[m ³ world eq. deprived]	2.29E-02	0.00E+00	3.57E-05	0.00E+00	1.09E-04	0.00E+00
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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T10&T13 - WOOD OIL							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	3.95E-08	0.00E+00	4.54E-11	0.00E+00	2.06E-11	0.00E+00
IRP ²	[kBq U235 eq.]	2.84E-02	0.00E+00	1.17E-05	0.00E+00	3.64E-05	0.00E+00
ETP-fw ¹	[CTUe]	6.38E+01	0.00E+00	8.56E-03	7.92E-01	5.38E-03	0.00E+00
HTP-c ¹	[CTUh]	1.13E-09	0.00E+00	5.56E-13	1.46E-09	1.97E-12	0.00E+00
HTP-nc ¹	[CTUh]	3.60E-08	0.00E+00	1.23E-11	1.67E-09	7.00E-11	0.00E+00
SQP ¹	-	1.93E+01	0.00E+00	5.24E-03	0.00E+00	4.33E-03	0.00E+00
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T10&T13 - WOOD OIL							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	4.56E+00	0.00E+00	1.36E-04	0.00E+00	2.99E-04	0.00E+00
PERM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	4.56E+00	0.00E+00	1.36E-04	0.00E+00	2.99E-04	0.00E+00
PENRE	[MJ]	7.61E+00	0.00E+00	8.66E-03	0.00E+00	5.49E-03	0.00E+00
PENRM	[MJ]	1.41E+00	0.00E+00	0.00E+00	-1.41E+00	0.00E+00	0.00E+00
PENRT	[MJ]	9.02E+00	0.00E+00	8.66E-03	-1.41E+00	5.49E-03	0.00E+00
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 ³]	1.52E-02	0.00E+00	3.56E-05	0.00E+00	1.07E-04	0.00E+00
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T10&T13 - WOOD OIL							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	1.79E-03	0.00E+00	1.62E-07	0.00E+00	1.05E-07	0.00E+00
NHWD	[kg]	7.60E-02	0.00E+00	4.30E-04	0.00E+00	3.31E-03	0.00E+00
RWD	[kg]	7.06E-06	0.00E+00	2.85E-09	0.00E+00	9.27E-09	0.00E+00
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	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	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; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

T11-12&T14 - Paint and Varnish – Additional results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T11-12&T14 - PAINT & VARNISH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	7.09E+00	0.00E+00	7.05E-03	3.00E+00	1.23E-02	0.00E+00
GWP-fossil	[kg CO ₂ eq.]	5.38E+00	0.00E+00	7.04E-03	3.00E+00	1.21E-02	0.00E+00
GWP-biogenic	[kg CO ₂ eq.]	0.00E+00	0.00E+00	6.45E-06	0.00E+00	1.92E-04	0.00E+00
GWP-luluc	[kg CO ₂ eq.]	1.71E+00	0.00E+00	3.48E-06	0.00E+00	2.81E-06	0.00E+00
ODP	[kg CFC 11 eq.]	1.64E-07	0.00E+00	1.53E-10	0.00E+00	6.60E-11	0.00E+00
AP	[mol H ⁺ eq.]	8.21E-02	0.00E+00	1.54E-05	0.00E+00	2.96E-05	0.00E+00
EP-freshwater	[kg P eq.]	3.43E-03	0.00E+00	5.00E-07	0.00E+00	3.36E-06	0.00E+00
EP-marine	[kg N eq.]	1.13E-02	0.00E+00	3.88E-06	0.00E+00	8.77E-06	0.00E+00
EP-terrestrial	[mol N eq.]	7.76E-02	0.00E+00	3.94E-05	0.00E+00	9.74E-05	0.00E+00
POCP	[kg NMVOC eq.]	2.85E-02	0.00E+00	2.39E-05	6.99E-07	2.87E-05	0.00E+00
ADPm ¹	[kg Sb eq.]	2.00E-03	0.00E+00	2.30E-08	0.00E+00	1.40E-08	0.00E+00
ADPf ¹	[MJ]	7.84E+01	0.00E+00	1.00E-01	0.00E+00	6.34E-02	0.00E+00
WDP ¹	[m ³ world eq. deprived]	3.49E+00	0.00E+00	4.12E-04	0.00E+00	1.26E-03	0.00E+00
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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T11-12&T14 - PAINT & VARNISH

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	4.66E-07	0.00E+00	5.25E-10	0.00E+00	2.38E-10	0.00E+00
IRP ²	[kBq U235 eq.]	5.99E-01	0.00E+00	1.35E-04	0.00E+00	4.20E-04	0.00E+00
ETP-fw ¹	[CTUe]	3.60E+02	0.00E+00	9.89E-02	9.15E+00	6.22E-02	0.00E+00
HTP-c ¹	[CTUh]	1.01E-08	0.00E+00	6.42E-12	1.68E-08	2.28E-11	0.00E+00
HTP-nc ¹	[CTUh]	2.62E-07	0.00E+00	1.42E-10	1.93E-08	8.08E-10	0.00E+00
SQP ¹	-	1.05E+02	0.00E+00	6.04E-02	0.00E+00	4.99E-02	0.00E+00
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T11-12&T14 - PAINT & VARNISH

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	2.36E+01	0.00E+00	1.57E-03	0.00E+00	3.45E-03	0.00E+00
PERM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	2.36E+01	0.00E+00	1.57E-03	0.00E+00	3.45E-03	0.00E+00
PENRE	[MJ]	7.96E+01	0.00E+00	1.00E-01	0.00E+00	6.34E-02	0.00E+00
PENRM	[MJ]	1.08E+01	0.00E+00	0.00E+00	-1.08E+01	0.00E+00	0.00E+00
PENRT	[MJ]	9.04E+01	0.00E+00	1.00E-01	-1.08E+01	6.34E-02	0.00E+00
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 ³]	3.33E+00	0.00E+00	4.10E-04	0.00E+00	1.24E-03	0.00E+00
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T11-12&T14 - PAINT & VARNISH

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	2.10E-02	0.00E+00	1.87E-06	0.00E+00	1.21E-06	0.00E+00
NHWD	[kg]	2.88E+00	0.00E+00	4.97E-03	0.00E+00	3.82E-02	0.00E+00
RWD	[kg]	1.45E-04	0.00E+00	3.29E-08	0.00E+00	1.07E-07	0.00E+00

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	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	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; EEE = Exported electrical energy; EET = Exported thermal energy
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.

T11-12&T14 – Wood Oil – Additional results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T11-12&T14 - WOOD OIL							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	9.84E-01	0.00E+00	6.66E-04	2.84E-01	1.16E-03	0.00E+00
GWP-fossil	[kg CO ₂ eq.]	5.28E-01	0.00E+00	6.65E-04	2.84E-01	1.14E-03	0.00E+00
GWP-biogenic	[kg CO ₂ eq.]	0.00E+00	0.00E+00	6.09E-07	0.00E+00	1.82E-05	0.00E+00
GWP-luluc	[kg CO ₂ eq.]	4.55E-01	0.00E+00	3.28E-07	0.00E+00	2.65E-07	0.00E+00
ODP	[kg CFC 11 eq.]	1.36E-08	0.00E+00	1.45E-11	0.00E+00	6.23E-12	0.00E+00
AP	[mol H ⁺ eq.]	4.05E-03	0.00E+00	1.45E-06	0.00E+00	2.80E-06	0.00E+00
EP-freshwater	[kg P eq.]	5.29E-04	0.00E+00	4.73E-08	0.00E+00	3.18E-07	0.00E+00
EP-marine	[kg N eq.]	1.98E-03	0.00E+00	3.67E-07	0.00E+00	8.28E-07	0.00E+00
EP-terrestrial	[mol N eq.]	1.10E-02	0.00E+00	3.73E-06	0.00E+00	9.21E-06	0.00E+00
POCP	[kg NMVOC eq.]	3.27E-03	0.00E+00	2.26E-06	6.61E-08	2.71E-06	0.00E+00
ADPm ¹	[kg Sb eq.]	4.51E-04	0.00E+00	2.17E-09	0.00E+00	1.33E-09	0.00E+00
ADPf ¹	[MJ]	8.04E+00	0.00E+00	9.45E-03	0.00E+00	5.99E-03	0.00E+00
WDP ¹	[m ³ world eq. deprived]	2.10E-02	0.00E+00	3.89E-05	0.00E+00	1.19E-04	0.00E+00
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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T11-12&T14 - WOOD OIL

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	4.37E-08	0.00E+00	4.96E-11	0.00E+00	2.24E-11	0.00E+00
IRP ²	[kBq U235 eq.]	3.16E-02	0.00E+00	1.28E-05	0.00E+00	3.97E-05	0.00E+00
ETP-fw ¹	[CTUe]	6.99E+01	0.00E+00	9.34E-03	8.64E-01	5.87E-03	0.00E+00
HTP-c ¹	[CTUh]	1.25E-09	0.00E+00	6.06E-13	1.59E-09	2.15E-12	0.00E+00
HTP-nc ¹	[CTUh]	4.01E-08	0.00E+00	1.34E-11	1.83E-09	7.63E-11	0.00E+00
SQP ¹	-	2.11E+01	0.00E+00	5.71E-03	0.00E+00	4.72E-03	0.00E+00
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T11-12&T14 - WOOD OIL

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	4.99E+00	0.00E+00	1.48E-04	0.00E+00	3.26E-04	0.00E+00
PERM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	4.99E+00	0.00E+00	1.48E-04	0.00E+00	3.26E-04	0.00E+00
PENRE	[MJ]	8.38E+00	0.00E+00	9.45E-03	0.00E+00	5.99E-03	0.00E+00
PENRM	[MJ]	1.58E+00	0.00E+00	0.00E+00	-1.58E+00	0.00E+00	0.00E+00
PENRT	[MJ]	9.95E+00	0.00E+00	9.45E-03	-1.58E+00	5.99E-03	0.00E+00
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 ³]	1.26E-02	0.00E+00	3.88E-05	0.00E+00	1.17E-04	0.00E+00
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T11-12&T14 - WOOD OIL

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	2.00E-03	0.00E+00	1.76E-07	0.00E+00	1.14E-07	0.00E+00
NHWD	[kg]	8.39E-02	0.00E+00	4.69E-04	0.00E+00	3.61E-03	0.00E+00
RWD	[kg]	7.84E-06	0.00E+00	3.11E-09	0.00E+00	1.01E-08	0.00E+00

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	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	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; EEE = Exported electrical energy; EET = Exported thermal energy

The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95 \cdot 10^2$ or 195, while 1,12E-11 is the same as $1,12 \cdot 10^{-11}$ or 0,0000000000112.

T15 - Paint and Varnish – Additional results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T15 - PAINT & VARNISH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	1.01E+01	0.00E+00	9.66E-03	4.11E+00	1.69E-02	0.00E+00
GWP-fossil	[kg CO ₂ eq.]	7.56E+00	0.00E+00	9.64E-03	4.11E+00	1.66E-02	0.00E+00
GWP-biogenic	[kg CO ₂ eq.]	0.00E+00	0.00E+00	8.84E-06	0.00E+00	2.64E-04	0.00E+00
GWP-luluc	[kg CO ₂ eq.]	2.58E+00	0.00E+00	4.76E-06	0.00E+00	3.84E-06	0.00E+00
ODP	[kg CFC 11 eq.]	2.35E-07	0.00E+00	2.10E-10	0.00E+00	9.04E-11	0.00E+00
AP	[mol H ⁺ eq.]	1.17E-01	0.00E+00	2.11E-05	0.00E+00	4.05E-05	0.00E+00
EP-freshwater	[kg P eq.]	4.72E-03	0.00E+00	6.85E-07	0.00E+00	4.61E-06	0.00E+00
EP-marine	[kg N eq.]	1.62E-02	0.00E+00	5.32E-06	0.00E+00	1.20E-05	0.00E+00
EP-terrestrial	[mol N eq.]	1.08E-01	0.00E+00	5.40E-05	0.00E+00	1.33E-04	0.00E+00
POCP	[kg NMVOC eq.]	4.01E-02	0.00E+00	3.27E-05	9.58E-07	3.93E-05	0.00E+00
ADPm ¹	[kg Sb eq.]	2.69E-03	0.00E+00	3.15E-08	0.00E+00	1.92E-08	0.00E+00
ADPf ¹	[MJ]	1.09E+02	0.00E+00	1.37E-01	0.00E+00	8.69E-02	0.00E+00
WDP ¹	[m ³ world eq. deprived]	4.99E+00	0.00E+00	5.65E-04	0.00E+00	1.73E-03	0.00E+00
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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T15 - PAINT & VARNISH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	6.57E-07	0.00E+00	7.19E-10	0.00E+00	3.25E-10	0.00E+00
IRP ²	[kBq U235 eq.]	8.02E-01	0.00E+00	1.85E-04	0.00E+00	5.76E-04	0.00E+00
ETP-fw ¹	[CTUe]	5.28E+02	0.00E+00	1.35E-01	1.25E+01	8.52E-02	0.00E+00
HTP-c ¹	[CTUh]	1.43E-08	0.00E+00	8.79E-12	2.31E-08	3.12E-11	0.00E+00
HTP-nc ¹	[CTUh]	3.63E-07	0.00E+00	1.94E-10	2.65E-08	1.11E-09	0.00E+00
SQP ¹	-	1.54E+02	0.00E+00	8.28E-02	0.00E+00	6.84E-02	0.00E+00
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T15 - PAINT & VARNISH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	3.47E+01	0.00E+00	2.15E-03	0.00E+00	4.72E-03	0.00E+00
PERM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	3.47E+01	0.00E+00	2.15E-03	0.00E+00	4.72E-03	0.00E+00
PENRE	[MJ]	1.11E+02	0.00E+00	1.37E-01	0.00E+00	8.69E-02	0.00E+00
PENRM	[MJ]	1.39E+01	0.00E+00	0.00E+00	-1.39E+01	0.00E+00	0.00E+00
PENRT	[MJ]	1.25E+02	0.00E+00	1.37E-01	-1.39E+01	8.69E-02	0.00E+00
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 ³]	4.76E+00	0.00E+00	5.62E-04	0.00E+00	1.70E-03	0.00E+00
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T15 - PAINT & VARNISH							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	2.88E-02	0.00E+00	2.56E-06	0.00E+00	1.66E-06	0.00E+00
NHWD	[kg]	4.12E+00	0.00E+00	6.81E-03	0.00E+00	5.24E-02	0.00E+00
RWD	[kg]	1.96E-04	0.00E+00	4.50E-08	0.00E+00	1.47E-07	0.00E+00

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	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	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; EEE = Exported electrical energy; EET = Exported thermal energy
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.

T15 – Wood Oil – Additional results

ENVIRONMENTAL IMPACTS PER 1 RISE OF T15 - WOOD OIL							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	1.01E+00	0.00E+00	7.07E-04	3.01E-01	1.23E-03	0.00E+00
GWP-fossil	[kg CO ₂ eq.]	5.31E-01	0.00E+00	7.06E-04	3.01E-01	1.21E-03	0.00E+00
GWP-biogenic	[kg CO ₂ eq.]	0.00E+00	0.00E+00	6.47E-07	0.00E+00	1.93E-05	0.00E+00
GWP-luluc	[kg CO ₂ eq.]	4.83E-01	0.00E+00	3.49E-07	0.00E+00	2.82E-07	0.00E+00
ODP	[kg CFC 11 eq.]	1.41E-08	0.00E+00	1.54E-11	0.00E+00	6.62E-12	0.00E+00
AP	[mol H ⁺ eq.]	4.00E-03	0.00E+00	1.54E-06	0.00E+00	2.97E-06	0.00E+00
EP-freshwater	[kg P eq.]	5.06E-04	0.00E+00	5.02E-08	0.00E+00	3.37E-07	0.00E+00
EP-marine	[kg N eq.]	2.04E-03	0.00E+00	3.90E-07	0.00E+00	8.80E-07	0.00E+00
EP-terrestrial	[mol N eq.]	1.08E-02	0.00E+00	3.96E-06	0.00E+00	9.78E-06	0.00E+00
POCP	[kg NMVOC eq.]	3.26E-03	0.00E+00	2.40E-06	7.02E-08	2.88E-06	0.00E+00
ADPm ¹	[kg Sb eq.]	4.23E-04	0.00E+00	2.31E-09	0.00E+00	1.41E-09	0.00E+00
ADPf ¹	[MJ]	8.20E+00	0.00E+00	1.00E-02	0.00E+00	6.36E-03	0.00E+00
WDP ¹	[m ³ world eq. deprived]	4.11E-02	0.00E+00	4.14E-05	0.00E+00	1.27E-04	0.00E+00
Caption	GWP-total = Global 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 depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						
Disclaimer	¹ 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.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 RISE OF T15 - WOOD OIL							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	4.32E-08	0.00E+00	5.26E-11	0.00E+00	2.38E-11	0.00E+00
IRP ²	[kBq U235 eq.]	3.10E-02	0.00E+00	1.36E-05	0.00E+00	4.22E-05	0.00E+00
ETP-fw ¹	[CTUe]	7.29E+01	0.00E+00	9.92E-03	9.18E-01	6.24E-03	0.00E+00
HTP-c ¹	[CTUh]	1.25E-09	0.00E+00	6.44E-13	1.69E-09	2.29E-12	0.00E+00
HTP-nc ¹	[CTUh]	3.89E-08	0.00E+00	1.42E-11	1.94E-09	8.11E-11	0.00E+00
SQP ¹	-	2.21E+01	0.00E+00	6.07E-03	0.00E+00	5.01E-03	0.00E+00
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; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						
Disclaimers	¹ 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.						
	² 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.						

RESOURCE USE PER 1 RISE OF T15 - WOOD OIL							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	5.23E+00	0.00E+00	1.58E-04	0.00E+00	3.46E-04	0.00E+00
PERM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	5.23E+00	0.00E+00	1.58E-04	0.00E+00	3.46E-04	0.00E+00
PENRE	[MJ]	8.56E+00	0.00E+00	1.00E-02	0.00E+00	6.36E-03	0.00E+00
PENRM	[MJ]	1.57E+00	0.00E+00	0.00E+00	-1.57E+00	0.00E+00	0.00E+00
PENRT	[MJ]	1.01E+01	0.00E+00	1.00E-02	-1.57E+00	6.36E-03	0.00E+00
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 ³]	3.17E-02	0.00E+00	4.12E-05	0.00E+00	1.24E-04	0.00E+00
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						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,00000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 RISE OF T15 - WOOD OIL							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	1.89E-03	0.00E+00	1.87E-07	0.00E+00	1.21E-07	0.00E+00
NHWD	[kg]	8.44E-02	0.00E+00	4.98E-04	0.00E+00	3.84E-03	0.00E+00
RWD	[kg]	7.69E-06	0.00E+00	3.30E-09	0.00E+00	1.07E-08	0.00E+00
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	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	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; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.						

Indoor air

The EPD does not give information on release of dangerous substances to indoor air because the horizontal standards on the relevant measurements are not available. Read more in EN15804+A1 chapter 7.4.1.

Soil and water

The EPD does not give information on release of dangerous substances to soil and water because the horizontal standards on the relevant measurements are not available. Read more in EN15804+A1 chapter 7.4.2.

References

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General programme instructions

General Programme Instructions, version 2.0, spring 2020
www.epddanmark.dk

- EN 15804
 DS/EN 15804 + A2:2019 - "Bæredygtighed inden for byggeri og anlæg - Miljøvaredeklarationer - Grundlæggende regler for produktkategorien byggevarer"
 EN 15804 reference package
- EN 15942
 DS/EN 15942:2011 - "Bæredygtighed inden for byggeri og anlæg - Miljøvaredeklarationer (EPD) - Kommunikationsformat: business-to-business (B2B)"
- EN 16485
 DS/EN 16485:2014 - Round and sawn timber - Environmental product declarations - Product category rules for wood and wood-based products for use in construction.
- EN 14342
 DS/EN 14342:2013 - Wood flooring - Characteristics, evaluation of conformity and marking.
- EN 16449

DS/EN 16449:2014 – Wood and wood-based products – Calculation of the biogenic carbon content of wood and conversion to carbon dioxide.

- ISO 14025
DS/EN ISO 14025:2010 – "Miljømærker og -deklarationer - Type III-miljøvaredeklarationer - Principper og procedurer"
- ISO 14040
DS/EN ISO 14040:2008 – "Miljøledelse – Livscyklusvurdering – Principper og struktur"
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