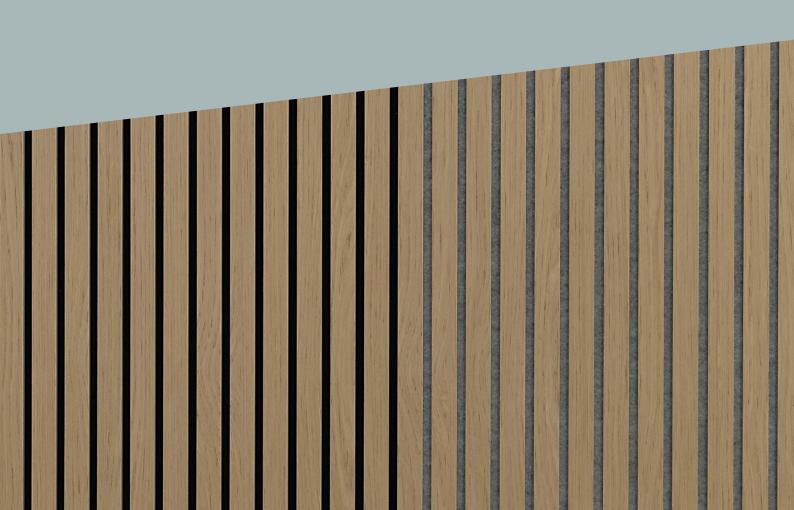




Vesterby Træteknik A/S MD-23142-EN_rev1

Issued: Revision: Valid to:

3. PARTS **VERIFICERET**







Owner of declaration

Vesterby Træteknik A/S Thorsvej 12-14, 6862 Tistrup CVR: 12371330



Kepddanmark

Programs

EPD Denmark

www.epddanmark.dk

☐ Industry EPD □ Product EPD

Declared product(s)

Vesterby Firestop, Multi Panels are fire-retardant panels that comply with B-s1, d0 (fire class). The panels are available in standard dimensions in several variants; slatted panels, solid panels and perforated panels. The panels have an opening degree between 10-40%. All panels are fitted with an acoustic fabric, which improves the acoustics in the room.

- Solid panel 12 mm
- Slatted panel 12 mm (10-19%, 20-29% and 30-40% opening)
- Slatted panel 15 mm (10-19%, 20-29% and 30-40% opening)
- Slatted panel 21 mm (10-19%, 20-29% and 30-40% opening)
- Slatted panel 30 mm (10-19%, 20-29% and 30-40% opening)
- Perforated panel 12 mm (10-19%, 20-29% and 30-40% opening) Perforated panel 15 mm (10-19%, 20-29% and 30-40% opening)

- Perforated panel 21 mm (10-19%, 20-29% and 30-40% opening)
- Perforated panel 30 mm (10-19%, 20-29% and 30-40% opening)

Number of declared datasets/product variations: 25

Production site

Thorsvej 12-14, 6862 Tistrup, Denmark. The factory purchases guarantees of origin for renewable energy to cover its electricity

Product use

Vesterby Firestop, Multi Panels can be used for cladding walls and ceilings in all types of private and public buildings as well as for renovation projects. The Vesterby Firestop, Multi Panel is fire tested in its full structure and approved for fire class B-s1, d0, as prescribed by the building regulations (BR18) for public buildings.

Declared/functional unit

1 m²/Cladding of wall or ceiling with 1 m² fire-retardant panel with fire class B-s1, d0 and a reference life of 30 years.

Year for production site data (A3)

2022

EPD version

Rev1, 26-03-2024: Translated to English

Issued 21-11-2023 Valid to: 21-11-2028

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.

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

EPD type

□Cradle-to-gate with C1-C4 and D □Cradle-to-gate with options, C1-C4 and D

□ Cradle-to-grave and module D

□Cradle-to-gate

□Cradle-to-gate with options

CEN standard EN 15804 serves as the core PCR

Independent verification of the declaration and data, according to EN ISO 14025

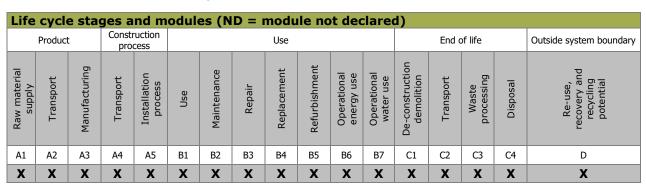
□trainee

⊠external

Third party verifier:

Kim Christiansen

Martha Katrine Sorensen EPD Denmark







Product information

Product description

The main materials (composition) of the product are listed in the table below. These constitute 100% by weight of the declared product.

	We	ight % of de	eclared proc	luct
Material	12 mm (10-40% opening)	15 mm (10-40% opening)	21 mm (10-40% opening)	30 mm (10-40% opening)
Plywood	72.1-76.5	75.9-78.8	81.1-83.6	85.7-87.7
Stone wool	2.8-3.1	2.5-2.6	1.9-2.0	1.5
Acoustic fabric	11.7-15.2	10.9-13.1	8.4-10.3	6.3-7.8
Veneer	4.9-6.3	4.5-5.5	3.5-4.3	2.6-3.3
Lacquer	0.9-1.0	0.8	0.6-0.7	0.5
Balancing paper	0.5	0.4	0.3	0.2
Glue	1.8-2.0	1.5-1.6	1.2-1.3	0.9-1.0
Staples	0.3	0.2-0.3	0.2	0.1-0.2
Sum	100	100	100	100

The product's sales and transport packaging (composition) are listed in the table below. These constitute 100% by weight of the packaging used.

Material	Weight % of packaging
Wood	99.7
Cardboard	0.1
Plastic	0.2
Sum	100.0
Total kg/declared unit	1.0

Representativeness

The declared unit is 1 m 2 Vesterby Firestop, Multi Panel. The indicators in this EPD are calculated based on a standard size panel of 2.48 m x 0.60 m. To find environmental impacts and other parameters referring to 1 m 2 of product, the

indicators are divided by the area of the panel (1.49 m^2) .

Data covers production of Vesterby Firestop, Multi Panels at Vesterby Træteknik's factory (Thorsvej 12-14, 6862 Tistrup, Denmark)

Data for the underlying LCA is based on annual averages for 2022. Background data is based on ecoinvent v3.9.1. The data used is less than 10 years old in accordance with EN15804:2012 +A2:2019.

Content of hazardous substances

The product does not contain substances from the REACH Candidate List, "Candidate List of Substances of Very High Concern for authorization" exceeding 0.1% by weight. (http://echa.europa.eu/candidate-list-table).

Essential characteristics

Vesterby Firestop, Multi panels comply with the FSC Chain of Custody standard (NC-COC-054476), as well as fire requirements described in the building regulations (BR18) – fire class B-s1, d0.

Further information about Vesterby Firestop, Multi Panels can be obtained by requesting information from Vesterby Træteknik or on Vesterby Træteknik's website:

https://www.vesterbypaneler.dk/vesterbyfirestop/vesterby-firestop-multi-panels/

Lifespan (RSL)

The reference lifespan is 30 years based on the manufacturer's experience and lifespan assessments for similar building products conducted by BUILD – Department of Building, Urban and Environmental Engineering, Aalborg University.





Product image(s)

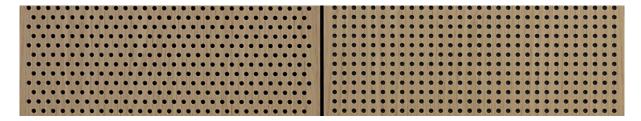
Solid panels:



Slatted panels:



Perforated panels – holes:



Perforated panels – cheese holes:



Perforated panels - slits:







LCA background

Declared unit

LCI and LCIA results in this EPD relate to 1 m^2 of Vesterby Firestop, Multi Panel as indicated in the table below, showing average density and a conversion factor to kg.

Product	Declared unit	Density (kg/m³)	Weight per declared unit (kg/m²)	Conversion factor to 1 kg (m²/kg)
12 mm solid		381	11.8	0.0847
12 mm slat, 10-19% opening		352	10.9	0.0917
12 mm slat, 20-29% opening		323	10.0	0.1000
12 mm slat, 30-40% opening		294	9.1	0.1099
12 mm perforated, 10-19% opening		352	10.9	0.0917
12 mm perforated, 20-29% opening		323	10.0	0.1000
12 mm perforated, 30-40% opening		294	9.1	0.1099
15 mm slat, 10-19% opening		375	12.8	0.0784
15 mm slat, 20-19% opening		343	11.6	0.0859
15 mm slat, 30-40% opening		310	10.5	0.0949
15 mm perforated, 10-19% opening		375	12.8	0.0784
15 mm perforated, 20-29% opening		343	11.6	0.0859
15 mm perforated, 30-40% opening	1 m ²	310	10.5	0.0949
21 mm slat, 10-19% opening		411	16.4	0.0608
21 mm slat, 20-29% opening		373	14.9	0.0670
21 mm slat, 30-40% opening		335	13.4	0.0745
21 mm perforated, 10-29% opening		411	16.4	0.0608
21 mm perforated, 20-29% opening		373	14.9	0.0670
21 mm perforated, 30-40% opening		335	13.4	0.0745
30 mm slat, 10-19% opening		449	22.0	0.0455
30 mm slat, 20-29% opening		405	19.9	0.0503
30 mm slat, 30-40% opening		362	17.7	0.0564
30 mm perforated, 10-19% opening		449	22.0	0.0455
30 mm perforated, 20-29% opening		405	19.9	0.0503
30 mm perforated, 30-40% opening		362	17.7	0.0564

Functional unit

Cladding of wall or ceiling with 1 m² fire-retardant panel with fire class B-s1, d0 and a reference lifespan of 30 years.

PCR

This environmental product declaration is based on the requirements of EN 15804:2012+A 2:2019.

Used Guarantee of Origin certificates

Foreground system:

The product is produced using electricity from renewable sources (hydropower), for which guarantees of origin have been purchased. The guarantees of origin cover 100% of the electricity consumption at the factory in 2022.

Electricity consumption for painting at subcontractors is modeled with the Danish residual mix for 2023.

The residual electricity is modeled with the average electricity mix for the geographies where each process in the foreground system takes place. This is because the ecoinvent v3.9.1 database does not support all processes with residual mix.

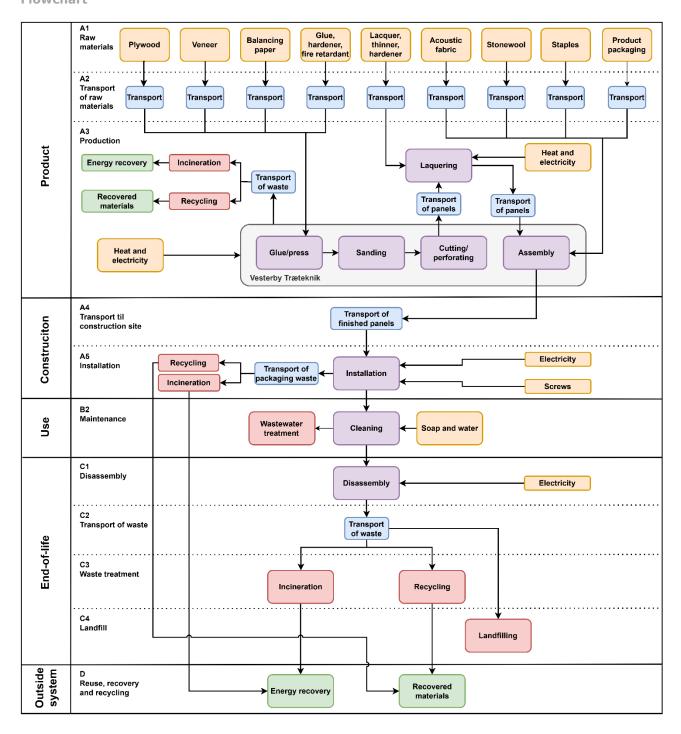
Background system:

Upstream and downstream processes are modeled with average electricity mixes.





Flowchart







System boundary

The EPD is based on a cradle-to-grave LCA, where all relevant and important processes are included. Modules B1, B3, B4, B5, B6 and B7 are not relevant for the declared products.

The general rules for omitting inputs and outputs in the LCA follow the provisions of EN 15804:2012+A2:2019, 6.3.6, where the total omission of input flow per module may not exceed 5% of energy consumption and mass and max 1% per unit process.

Product phase (A1-A3):

The product phase includes the procurement of all raw materials, products and energy, transport to the production site, packaging and waste - processing up to "end-of-waste" state - or final disposal.

<u>A1 – Extraction and production of raw materials</u>

Plywood, veneer, balancing paper, glue, varnish, acoustic fabric, rock wool and staples are produced by Vesterby Træteknik's suppliers in Denmark and Europe. Extraction, processing and manufacturing of all materials are included in this module.

A2 - Transport for manufacturing

All raw materials are delivered to Vesterby Træteknik by truck. Varnish is delivered directly to Vesterby Træteknik's subcontractor.

A3 - Manufacturing

Plywood, veneer and balancing paper are assembled with fire-retardant glue and pressed, sanded and perforated and/or cut to size. The perforated/cut panels are transported by truck for painting at Vesterby Træteknik's subcontractor and back. After painting, the panels are assembled with acoustic fabric, rock wool and staples.

Waste from production is sent to material recycling, biomass incineration and municipal waste incineration.

The LCA results are declared in aggregate form for the product phase, which means that the

submodules A1, A2 and A3 are declared as one module: A1-A3.

Construction process phase (A4-A5):

A4 - Transport to the customer

A scenario for delivery in Denmark has been used. A transport distance of 250 km to the customer has been assumed, which is considered a conservative scenario.

A5 - Product assembly

Screws, rawl plugs and hand drill are included in this module for installing the product on the wall without adjusting the size. Product packaging is also disposed of in this module and the materials are sent for recycling and incineration based on statistics for Denmark from Eurostat (2023a).

The use phase (B1-B7):

B2 - Maintenance (cleaning)

Water and soap as well as wastewater drainage for cleaning the panel twice a year for 30 years are collected in this module.

End of life (C1-C4):

C1 - Disassembly

A hand screwdriver is included in this module for dismantling the product from the wall.

C2 - Waste transport

Average transport for waste management for Denmark is integrated into this module.

C3/C4 - Waste treatment and landfill

Recycling, energy recovery and landfill are used as waste management based on statistics for Denmark from Eurostat (2023b). The materials are processed in this module until they reach the end-of-waste criterion.

Reuse, recovery and recycling (D):

Waste materials sent for recycling replace virgin materials corresponding to the efficiency of the recycling process. Waste materials sent for incineration replace the production of average Danish electricity mix and district heating based on biomass.





LCA results

No.	1 Vesterby Firestop, Multipanels, 12 mm solid	9
No.	2 Vesterby Firestop, Multipanels, 12 mm slats, 10-19% opening	11
No.	3 Vesterby Firestop, Multipanels, 12 mm slats, 20-29% opening	13
No.	4 Vesterby Firestop, Multipanels, 12 mm slats, 30-40% opening	15
No.	5 Vesterby Firestop, Multipanels, 12 mm perforated, 10-19% opening	17
No.	6 Vesterby Firestop, Multipanels, 12 mm perforated, 20-29% opening	19
No.	7 Vesterby Firestop, Multipanels, 12 mm perforated, 30-40% opening	21
No.	8 Vesterby Firestop, Multipanels, 15 mm slats, 10-19% opening	23
No.	9 Vesterby Firestop, Multipanels, 15 mm slats, 20-29% opening	25
No.	10 Vesterby Firestop, Multipanels, 15 mm slats, 30-40% opening	27
No.	11 Vesterby Firestop, Multipanels, 15 mm perforated, 10-19% opening	29
No.	12 Vesterby Firestop, Multipanels, 15 mm perforated, 20-29% opening	31
No.	13 Vesterby Firestop, Multipanels, 15 mm perforated, 30-40% opening	33
No.	14 Vesterby Firestop, Multipanels, 21 mm slats, 10-19% opening	35
No.	15 Vesterby Firestop, Multipanels, 21 mm slats, 20-29% opening	37
No.	16 Vesterby Firestop, Multipanels, 21 mm slats, 30-40% opening	39
No.	17 Vesterby Firestop, Multipanels, 21 mm perforated, 10-19% opening	41
	18 Vesterby Firestop, Multipanels, 21 mm perforated, 20-29% opening	
No.	19 Vesterby Firestop, Multipanels, 21 mm perforated, 30-40% opening	45
No.	20 Vesterby Firestop, Multipanels, 30 mm slats, 10-19% opening	47
No.	21 Vesterby Firestop, Multipanels, 30 mm slats, 20-29% opening	49
No.	22 Vesterby Firestop, Multipanels, 30 mm slats, 30-40% opening	51
	23 Vesterby Firestop, Multipanels, 30 mm perforated, 10-19% opening	
	24 Vesterby Firestop, Multipanels, 30 mm perforated, 20-29% opening	
No.	25 Vesterby Firestop, Multipanels, 30 mm perforated, 30-40% opening	57





No. 1 Vesterby Firestop, Multipanels, 12 mm solid

	ENVIRONMENTAL IMPACTS PER M ²											
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
GWP-total	[kg CO ₂ eq.]	5.79E+00	3.75E-01	2.11E+00	9.70E-01	6.21E-03	7.50E-02	1.56E+01	2.64E-03	-1.82E+00		
GWP-fossil	[kg CO ₂ eq.]	2.01E+01	3.75E-01	3.79E-01	3.66E-01	6.20E-03	7.49E-02	1.70E+00	2.63E-03	-1.82E+00		
GWP-biogenic	[kg CO ₂ eq.]	-1.57E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.40E+01	0.00E+00	0.00E+00		
GWP-luluc	[kg CO ₂ eq.]	1.36E+00	1.74E-04	3.43E-04	6.04E-01	1.89E-05	3.60E-05	1.12E-03	1.55E-06	-4.13E-03		
ODP	[kg CFC 11 eq.]	8.37E-07	8.03E-09	4.10E-09	1.89E-08	1.39E-10	1.60E-09	3.61E-08	7.31E-11	-4.72E-08		
AP	[mol H+ eq.]	3.82E-01	1.52E-03	1.79E-03	4.08E-03	3.06E-05	3.41E-04	1.31E-02	1.90E-05	-1.47E-02		
EP-freshwater	[kg P eq.]	7.47E-03	2.62E-05	1.02E-04	6.50E-03	5.22E-06	5.26E-06	3.69E-04	2.10E-07	-7.08E-04		
EP-marine	[kg N eq.]	7.41E-02	5.75E-04	4.45E-04	4.65E-03	6.04E-06	1.35E-04	2.67E-03	7.30E-06	-2.47E-03		
EP-terrestrial	[mol N eq.]	1.47E+00	6.13E-03	3.65E-03	1.51E-02	6.94E-05	1.45E-03	3.04E-02	7.83E-05	-3.47E-02		
POCP	[kg NMVOC eq.]	1.28E-01	2.30E-03	1.26E-03	2.49E-03	1.69E-05	5.06E-04	9.06E-03	2.72E-05	-1.08E-02		
ADPm ¹	[kg Sb eq.]	1.05E-04	9.92E-07	4.54E-06	3.50E-06	1.36E-07	2.27E-07	7.82E-06	3.51E-09	-9.87E-06		
ADPf ¹	[MJ]	3.06E+02	5.37E+00	4.97E+00	3.70E+00	9.99E-02	1.05E+00	1.72E+01	6.29E-02	-2.51E+01		
WDP ¹	[m³ world eq. deprived]	1.67E+01	2.60E-02	1.81E-01	5.87E-01	1.15E-03	4.65E-03	1.91E-01	2.78E-03	-4.76E-01		
Caption	GWP-total = Global warming, total; GWP-fossil = Global warming, fossil fuels; GWP- biogenic = Global warming, biogenic; GWP- luluc = Global warming, land use and land conversion; ODP = Ozone depletion; AP = Acidification; EP-freshwater = Eutrophication (nutrient loading) – freshwater; EP-marine = Eutrophication (nutrient loading) – marine; EP- terrestrial = Eutrophication (nutrient loading) – terrestrial; POCP = Photochemical ozone creation; ADPm = Depletion of abiotic resources – minerals and metals; ADPf = Depletion of abiotic fossil resources; WDP = Depletion of water resources The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.											
Disclaimer	¹ Results of this environ	mental indicat						n or when the	re are limited	results with		

		ADDITI	ONAL EN	VIRONME	NTAL IM	PACTS P	ER M ²			
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
PM	[Incidence of disease]	3.53E-06	2.92E-08	2.17E-08	6.30E-08	1.91E-10	5.88E-09	7.66E-08	4.05E-10	-1.67E-07
IRP ²	[kBq U235 eq .]	3.72E+00	6.78E-03	3.36E-02	2.10E-02	2.21E-03	1.46E-03	8.92E-02	3.99E-05	-2.52E-01
ETP- fw 1	[CTUe]	2.96E+02	2.81E+00	1.52E+00	5.77E+01	2.18E-02	5.57E-01	5.14E+00	3.09E-02	-6.27E+00
HTP-c ¹	[CTUh]	7.47E-08	1.59E-10	1.15E-09	7.88E-10	4.43E-12	3.93E-11	4.93E-09	1.07E-12	-6.88E-09
HTP- nc 1	[CTUh]	4.92E-07	5.01E-09	6.59E-09	2.39E-08	1.98E-10	1.05E-09	2.09E-08	3.05E-11	-3.08E-08
SQP ¹	-	3.02E+03	5.46E+00	1.80E+00	3.49E+01	1.36E-01	7.91E-01	5.85E+00	1.25E-01	-2.50E+02
Continu	PM = Particulate matter;					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be
Disclaimers	¹ Results of this environ	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.								
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in





			RES	OURCE (JSE PER	M ²				
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
PEAR	[MJ]	2.50E+02	7.87E-02	7.86E-01	1.71E+01	1.02E-01	1.67E-02	1.51E+00	5.33E-04	-4.83E+01
PERM	[MJ]	1.72E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00
PERT	[MJ]	4.22E+02	7.87E-02	7.86E-01	1.71E+01	1.02E-01	1.67E-02	1.51E+00	5.33E-04	-5.02E+01
PENRE	[MJ]	2.97E+02	5.37E+00	4.97E+00	4.35E+00	9.99E-02	1.05E+00	1.72E+01	6.29E-02	-2.50E+01
PENRM	[MJ]	1.07E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01
PENRT	[MJ]	3.08E+02	5.37E+00	4.97E+00	4.35E+00	9.99E-02	1.05E+00	1.72E+01	6.29E-02	-2.51E+01
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[^{m3}]	-1.75E+00	-2.28E-03	-1.45E-02	-2.97E-02	-2.59E-05	-5.13E-04	-8.17E-02	4.66E-05	1.12E-01
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be the same as 1.12*10 11 or 0.000000000112.									

		WASTE	CATEGO	RIES ANI	O OUTPU	T FLOW F	PER M ²			
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RWD	[kg]	9.58E-04	1.77E-06	9.09E-06	5.66E-06	5.49E-07	3.82E-07	2.23E-05	1.01E-08	-6.73E-05
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Caption	HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy									
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be

	BIOGENIC CARBON/CARBON PER M ²								
Parameters	Unit	At the factory gate							
Biogenic carbon content in the product	[kg C]	3.80							
Biogenic carbon content In the included packaging	[kg C]	0.47							
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$							





No. 2 Vesterby Firestop, Multipanels, 12 mm slats, 10-19% opening

	ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
GWP-total	[kg CO ₂ eq.]	6.04E+00	3.46E-01	2.11E+00	8.73E-01	6.21E-03	6.92E-02	1.44E+01	2.64E-03	-1.77E+00			
GWP-fossil	[kg CO ₂ eq.]	1.92E+01	3.46E-01	3.79E-01	3.29E-01	6.20E-03	6.92E-02	1.67E+00	2.63E-03	-1.77E+00			
GWP-biogenic	[kg CO ₂ eq.]	-1.45E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.28E+01	0.00E+00	0.00E+00			
GWP-luluc	[kg CO ₂ eq.]	1.35E+00	1.61E-04	3.43E-04	5.44E-01	1.89E-05	3.32E-05	1.05E-03	1.55E-06	-3.86E-03			
ODP	[kg CFC 11 eq.]	8.17E-07	7.42E-09	4.10E-09	1.70E-08	1.39E-10	1.48E-09	3.57E-08	7.31E-11	-4.60E-08			
AP	[mol H+ eq.]	3.74E-01	1.40E-03	1.79E-03	3.67E-03	3.06E-05	3.15E-04	1.29E-02	1.90E-05	-1.44E-02			
EP-freshwater	[kg P eq.]	7.18E-03	2.42E-05	1.02E-04	5.85E-03	5.22E-06	4.86E-06	3.62E-04	2.10E-07	-6.81E-04			
EP-marine	[kg N eq.]	7.17E-02	5.31E-04	4.45E-04	4.19E-03	6.04E-06	1.25E-04	2.61E-03	7.30E-06	-2.36E-03			
EP-terrestrial	[mol N eq.]	1.44E+00	5.67E-03	3.65E-03	1.35E-02	6.94E-05	1.34E-03	2.98E-02	7.83E-05	-3.34E-02			
POCP	[kg NMVOC eq.]	1.20E-01	2.13E-03	1.26E-03	2.24E-03	1.69E-05	4.68E-04	8.87E-03	2.72E-05	-1.04E-02			
ADPm ¹	[kg Sb eq.]	1.01E-04	9.16E-07	4.54E-06	3.15E-06	1.36E-07	2.10E-07	7.76E-06	3.51E-09	-9.67E-06			
ADPf ¹	[MJ]	2.87E+02	4.96E+00	4.97E+00	3.33E+00	9.99E-02	9.74E-01	1.68E+01	6.29E-02	-2.43E+01			
WDP ¹	[m³ world eq. deprived]	1.57E+01	2.40E-02	1.81E-01	5.28E-01	1.15E-03	4.30E-03	1.91E-01	2.78E-03	-4.54E-01			
Caption	GWP-total = Global warming, total; GWP-fossil = Global warming, land use and land conversion; ODP = Ozone depletion; AP = Acidification; EP-freshwater = Eutrophication (nutrient loading) – freshwater; EP-marine = Eutrophication (nutrient loading) – marine; EP- terrestrial = Eutrophication (nutrient loading) – terrestrial; POCP = Photochemical ozone creation; ADPm = Depletion of abiotic resources – minerals and metals; ADPf = Depletion of abiotic fossil resources; WDP = Depletion of water resources The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be												
Disclaimer	¹ Results of this environ	mental indicat				.000000000011 certainties on		n or when the	re are limited i	results with			

		ADDITI	ONAL EN	VIRONME	NTAL IM	PACTS P	ER M ²			
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
PM	[Incidence of disease]	3.41E-06	2.69E-08	2.17E-08	5.67E-08	1.91E-10	5.43E-09	7.44E-08	4.05E-10	-1.58E-07
IRP ²	[kBq U235 eq .]	3.43E+00	6.27E-03	3.36E-02	1.89E-02	2.21E-03	1.35E-03	8.75E-02	3.99E-05	-2.39E-01
ETP- fw 1	[CTUe]	2.92E+02	2.60E+00	1.52E+00	5.20E+01	2.18E-02	5.15E-01	4.92E+00	3.09E-02	-6.01E+00
HTP-c ¹	[CTUh]	6.94E-08	1.47E-10	1.15E-09	7.09E-10	4.43E-12	3.63E-11	4.90E-09	1.07E-12	-6.74E-09
HTP- nc 1	[CTUh]	4.74E-07	4.63E-09	6.59E-09	2.15E-08	1.98E-10	9.67E-10	2.02E-08	3.05E-11	-2.97E-08
SQP ¹	-	2.87E+03	5.04E+00	1.80E+00	3.14E+01	1.36E-01	7.31E-01	5.61E+00	1.25E-01	-2.32E+02
Continu	PM = Particulate matter;		radiation - hu Human toxic						icity - cancer	effects; HTP-
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be
Disclaimers	¹ Results of this environ	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.								
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in





			RES	OURCE	JSE PER	M2				
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
PEAR	[MJ]	2.33E+02	7.27E-02	7.86E-01	1.54E+01	1.02E-01	1.54E-02	1.49E+00	5.33E-04	-4.47E+01
PERM	[MJ]	1.58E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00
PERT	[MJ]	3.91E+02	7.27E-02	7.86E-01	1.54E+01	1.02E-01	1.54E-02	1.49E+00	5.33E-04	-4.66E+01
PENRE	[MJ]	2.79E+02	4.96E+00	4.97E+00	3.91E+00	9.99E-02	9.74E-01	1.68E+01	6.29E-02	-2.42E+01
PENRM	[MJ]	9.74E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01
PENRT	[MJ]	2.88E+02	4.96E+00	4.97E+00	3.91E+00	9.99E-02	9.74E-01	1.68E+01	6.29E-02	-2.43E+01
SM	[kg]	0.00E+00	0.00E+00	0.00E+00						
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00						
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00						
FW	[^{m3}]	-1.64E+00	-2.10E-03	-1.45E-02	-2.67E-02	-2.59E-05	-4.74E-04	-8.08E-02	4.66E-05	1.09E-01
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy; PENRM = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be the same as 1.12*10 11 or 0.00000000112.									

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²									
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RWD	[kg]	8.83E-04	1.63E-06	9.09E-06	5.09E-06	5.49E-07	3.53E-07	2.18E-05	1.01E-08	-6.39E-05
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Caption	HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy									
	The numbers are give	The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.								

BIOGENIC CARBON/CARBON PER M ²							
Parameters	Parameters Unit At the factory gate						
Biogenic carbon content in the product	[kg C]	3.47					
Biogenic carbon content In the included packaging	[kg C]	0.47					
Note	1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$						





No. 3 Vesterby Firestop, Multipanels, 12 mm slats, 20-29% opening

	ENVIRONMENTAL IMPACTS PER M ²									
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	6.29E+00	3.18E-01	2.11E+00	7.76E-01	6.21E-03	6.35E-02	1.32E+01	2.64E-03	-1.72E+00
GWP-fossil	[kg CO ₂ eq.]	1.82E+01	3.18E-01	3.79E-01	2.93E-01	6.20E-03	6.35E-02	1.64E+00	2.63E-03	-1.72E+00
GWP-biogenic	[kg CO ₂ eq.]	-1.33E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.16E+01	0.00E+00	0.00E+00
GWP-luluc	[kg CO ₂ eq.]	1.35E+00	1.48E-04	3.43E-04	4.83E-01	1.89E-05	3.05E-05	9.69E-04	1.55E-06	-3.58E-03
ODP	[kg CFC 11 eq.]	7.97E-07	6.81E-09	4.10E-09	1.51E-08	1.39E-10	1.36E-09	3.53E-08	7.31E-11	-4.48E-08
AP	[mol H+ eq.]	3.66E-01	1.29E-03	1.79E-03	3.26E-03	3.06E-05	2.89E-04	1.27E-02	1.90E-05	-1.41E-02
EP-freshwater	[kg P eq.]	6.89E-03	2.22E-05	1.02E-04	5.20E-03	5.22E-06	4.46E-06	3.56E-04	2.10E-07	-6.54E-04
EP-marine	[kg N eq.]	6.92E-02	4.87E-04	4.45E-04	3.72E-03	6.04E-06	1.15E-04	2.55E-03	7.30E-06	-2.26E-03
EP-terrestrial	[mol N eq.]	1.42E+00	5.20E-03	3.65E-03	1.20E-02	6.94E-05	1.23E-03	2.92E-02	7.83E-05	-3.22E-02
POCP	[kg NMVOC eq.]	1.12E-01	1.95E-03	1.26E-03	1.99E-03	1.69E-05	4.29E-04	8.68E-03	2.72E-05	-1.00E-02
ADPm ¹	[kg Sb eq.]	9.67E-05	8.40E-07	4.54E-06	2.80E-06	1.36E-07	1.93E-07	7.69E-06	3.51E-09	-9.46E-06
ADPf ¹	[MJ]	2.67E+02	4.55E+00	4.97E+00	2.96E+00	9.99E-02	8.93E-01	1.65E+01	6.29E-02	-2.35E+01
WDP ¹	[m³ world eq. deprived]	1.48E+01	2.21E-02	1.81E-01	4.70E-01	1.15E-03	3.95E-03	1.91E-01	2.78E-03	-4.32E-01
Caption	GWP-total = Global warming, total; GWP-fossil = Global warming, fossil fuels; GWP- biogenic = Global warming, biogenic; GWP- luluc = Global warming, land use and land conversion; ODP = Ozone depletion; AP = Acidification; EP-freshwater = Eutrophication (nutrient loading) – freshwater; EP-marine = Eutrophication (nutrient loading) – marine; EP- terrestrial = Eutrophication (nutrient loading) – terrestrial; POCP = Photochemical ozone creation; ADPm = Depletion of abiotic resources – minerals and metals; ADPf = Depletion of abiotic fossil resources; WDP = Depletion of water resources The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be									
Disclaimer	¹ Results of this environ	the same as 1.12*10 ⁻¹¹ or 0.000000000112. ¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.								

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²									
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
PM	[Incidence of disease]	3.29E-06	2.47E-08	2.17E-08	5.04E-08	1.91E-10	4.98E-09	7.22E-08	4.05E-10	-1.50E-07
IRP ²	[kBq U235 eq .]	3.13E+00	5.75E-03	3.36E-02	1.68E-02	2.21E-03	1.24E-03	8.59E-02	3.99E-05	-2.27E-01
ETP- fw 1	[CTUe]	2.87E+02	2.38E+00	1.52E+00	4.62E+01	2.18E-02	4.73E-01	4.70E+00	3.09E-02	-5.74E+00
HTP-c ¹	[CTUh]	6.41E-08	1.35E-10	1.15E-09	6.30E-10	4.43E-12	3.33E-11	4.88E-09	1.07E-12	-6.61E-09
HTP- nc 1	[CTUh]	4.57E-07	4.24E-09	6.59E-09	1.91E-08	1.98E-10	8.87E-10	1.95E-08	3.05E-11	-2.86E-08
SQP ¹	-	2.71E+03	4.63E+00	1.80E+00	2.79E+01	1.36E-01	6.71E-01	5.38E+00	1.25E-01	-2.14E+02
Continu	PM = Particulate matter; I					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-
Caption	The numbers are give	The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.								
Disclaimers	¹ Results of this environ	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.								
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in





	RESOURCE USE PER M ²									
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
PEAR	[MJ]	2.15E+02	6.67E-02	7.86E-01	1.37E+01	1.02E-01	1.41E-02	1.47E+00	5.33E-04	-4.10E+01
PERM	[MJ]	1.45E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00
PERT	[MJ]	3.60E+02	6.67E-02	7.86E-01	1.37E+01	1.02E-01	1.41E-02	1.47E+00	5.33E-04	-4.30E+01
PENRE	[MJ]	2.60E+02	4.55E+00	4.97E+00	3.48E+00	9.99E-02	8.93E-01	1.65E+01	6.29E-02	-2.34E+01
PENRM	[MJ]	8.74E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01
PENRT	[MJ]	2.69E+02	4.55E+00	4.97E+00	3.48E+00	9.99E-02	8.93E-01	1.65E+01	6.29E-02	-2.35E+01
SM	[kg]	0.00E+00	0.00E+00	0.00E+00						
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00						
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00						
FW	[^{m3}]	-1.53E+00	-1.93E-03	-1.45E-02	-2.37E-02	-2.59E-05	-4.35E-04	-7.98E-02	4.66E-05	1.06E-01
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be the same as 1.12*10 11 or 0.00000000112.									

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²									
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RWD	[kg]	8.08E-04	1.50E-06	9.09E-06	4.53E-06	5.49E-07	3.24E-07	2.14E-05	1.01E-08	-6.06E-05
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Caption		HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy								
	The numbers are give	The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.								

BIOGENIC CARBON/CARBON PER M ²							
Parameters	Parameters Unit At the factory gate						
Biogenic carbon content in the product	[kg C]	3.14					
Biogenic carbon content In the included packaging	[kg C]	0.47					
Note	1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$						





No. 4 Vesterby Firestop, Multipanels, 12 mm slats, 30-40% opening

	ENVIRONMENTAL IMPACTS PER M ²									
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	6.54E+00	2.89E-01	2.11E+00	6.79E-01	6.21E-03	5.78E-02	1.19E+01	2.64E-03	-1.67E+00
GWP-fossil	[kg CO ₂ eq.]	1.72E+01	2.89E-01	3.79E-01	2.56E-01	6.20E-03	5.78E-02	1.61E+00	2.63E-03	-1.67E+00
GWP-biogenic	[kg CO ₂ eq.]	-1.21E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.04E+01	0.00E+00	0.00E+00
GWP-luluc	[kg CO ₂ eq.]	1.35E+00	1.34E-04	3.43E-04	4.23E-01	1.89E-05	2.78E-05	8.92E-04	1.55E-06	-3.30E-03
ODP	[kg CFC 11 eq.]	7.77E-07	6.20E-09	4.10E-09	1.33E-08	1.39E-10	1.24E-09	3.49E-08	7.31E-11	-4.36E-08
AP	[mol H+ eq.]	3.58E-01	1.17E-03	1.79E-03	2.86E-03	3.06E-05	2.63E-04	1.26E-02	1.90E-05	-1.37E-02
EP-freshwater	[kg P eq.]	6.60E-03	2.02E-05	1.02E-04	4.55E-03	5.22E-06	4.06E-06	3.49E-04	2.10E-07	-6.28E-04
EP-marine	[kg N eq.]	6.68E-02	4.43E-04	4.45E-04	3.26E-03	6.04E-06	1.04E-04	2.49E-03	7.30E-06	-2.15E-03
EP-terrestrial	[mol N eq.]	1.39E+00	4.73E-03	3.65E-03	1.05E-02	6.94E-05	1.12E-03	2.86E-02	7.83E-05	-3.09E-02
POCP	[kg NMVOC eq.]	1.03E-01	1.78E-03	1.26E-03	1.74E-03	1.69E-05	3.91E-04	8.49E-03	2.72E-05	-9.66E-03
ADPm ¹	[kg Sb eq.]	9.25E-05	7.65E-07	4.54E-06	2.45E-06	1.36E-07	1.76E-07	7.62E-06	3.51E-09	-9.25E-06
ADPf ¹	[MJ]	2.47E+02	4.14E+00	4.97E+00	2.59E+00	9.99E-02	8.13E-01	1.61E+01	6.29E-02	-2.27E+01
WDP ¹	[m³ world eq. deprived]	1.38E+01	2.01E-02	1.81E-01	4.11E-01	1.15E-03	3.59E-03	1.91E-01	2.78E-03	-4.10E-01
Caption	GWP-total = Global warming, total; GWP-fossil = Global warming, fossil fuels; GWP- biogenic = Global warming, biogenic; GWP- luluc = Global warming, land use and land conversion; ODP = Ozone depletion; AP = Acidification; EP-freshwater = Eutrophication (nutrient loading) – freshwater; EP-marine = Eutrophication (nutrient loading) – marine; EP- terrestrial = Eutrophication (nutrient loading) – terrestrial; POCP = Photochemical ozone creation; ADPm = Depletion of abiotic resources – minerals and metals; ADPf = Depletion of abiotic fossil resources; WDP = Depletion of water resources The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be									
Disclaimer	¹ Results of this environ	the same as 1.12*10 ⁻¹¹ or 0.000000000112. 1 Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.								

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²									
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
PM	[Incidence of disease]	3.17E-06	2.25E-08	2.17E-08	4.41E-08	1.91E-10	4.54E-09	7.01E-08	4.05E-10	-1.41E-07
IRP ²	[kBq U235 eq .]	2.84E+00	5.23E-03	3.36E-02	1.47E-02	2.21E-03	1.13E-03	8.42E-02	3.99E-05	-2.14E-01
ETP- fw 1	[CTUe]	2.82E+02	2.17E+00	1.52E+00	4.04E+01	2.18E-02	4.30E-01	4.48E+00	3.09E-02	-5.48E+00
HTP-c ¹	[CTUh]	5.88E-08	1.23E-10	1.15E-09	5.51E-10	4.43E-12	3.03E-11	4.85E-09	1.07E-12	-6.47E-09
HTP- nc 1	[CTUh]	4.39E-07	3.86E-09	6.59E-09	1.67E-08	1.98E-10	8.07E-10	1.88E-08	3.05E-11	-2.75E-08
SQP ¹	-	2.56E+03	4.21E+00	1.80E+00	2.44E+01	1.36E-01	6.11E-01	5.15E+00	1.25E-01	-1.95E+02
Continu	PM = Particulate matter;					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-
Caption	The numbers are give	The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.								
Disclaimers	¹ Results of this environ	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.								
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in





	RESOURCE USE PER M ²									
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
PEAR	[MJ]	1.98E+02	6.07E-02	7.86E-01	1.20E+01	1.02E-01	1.29E-02	1.45E+00	5.33E-04	-3.74E+01
PERM	[MJ]	1.31E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00
PERT	[MJ]	3.28E+02	6.07E-02	7.86E-01	1.20E+01	1.02E-01	1.29E-02	1.45E+00	5.33E-04	-3.93E+01
PENRE	[MJ]	2.42E+02	4.14E+00	4.97E+00	3.04E+00	9.99E-02	8.13E-01	1.61E+01	6.29E-02	-2.25E+01
PENRM	[MJ]	7.75E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01
PENRT	[MJ]	2.49E+02	4.14E+00	4.97E+00	3.04E+00	9.99E-02	8.13E-01	1.61E+01	6.29E-02	-2.27E+01
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[^{m3}]	-1.41E+00	-1.75E-03	-1.45E-02	-2.08E-02	-2.59E-05	-3.96E-04	-7.89E-02	4.66E-05	1.03E-01
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be									
	The numbers are give	en in scientific				.000000000011		10 -01 195, WI	niie i.iZE-11	would be

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²									
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RWD	[kg]	7.33E-04	1.36E-06	9.09E-06	3.96E-06	5.49E-07	2.95E-07	2.10E-05	1.01E-08	-5.73E-05
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Caption		HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy								
	The numbers are give	The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.								

BIOGENIC CARBON/CARBON PER M ²							
Parameters	Parameters Unit At the factory gate						
Biogenic carbon content in the product	[kg C]	2.81					
Biogenic carbon content In the included packaging	[kg C]	0.47					
Note	1 kg of biogenic carbon is equivalent to 44/12 kg of CO ₂						





No. 5 Vesterby Firestop, Multipanels, 12 mm perforated, 10-19% opening

	ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
GWP-total	[kg CO ₂ eq.]	5.68E+00	3.46E-01	2.11E+00	8.73E-01	6.21E-03	6.92E-02	1.56E+01	2.64E-03	-1.77E+00			
GWP-fossil	[kg CO ₂ eq.]	2.00E+01	3.46E-01	3.79E-01	3.29E-01	6.20E-03	6.92E-02	1.67E+00	2.63E-03	-1.77E+00			
GWP-biogenic	[kg CO ₂ eq.]	-1.57E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.40E+01	0.00E+00	0.00E+00			
GWP-luluc	[kg CO ₂ eq.]	1.35E+00	1.61E-04	3.43E-04	5.44E-01	1.89E-05	3.32E-05	1.05E-03	1.55E-06	-3.86E-03			
ODP	[kg CFC 11 eq.]	8.35E-07	7.42E-09	4.10E-09	1.70E-08	1.39E-10	1.48E-09	3.57E-08	7.31E-11	-4.60E-08			
AP	[mol H+ eq.]	3.82E-01	1.40E-03	1.79E-03	3.67E-03	3.06E-05	3.15E-04	1.29E-02	1.90E-05	-1.44E-02			
EP-freshwater	[kg P eq.]	7.43E-03	2.42E-05	1.02E-04	5.85E-03	5.22E-06	4.86E-06	3.62E-04	2.10E-07	-6.81E-04			
EP-marine	[kg N eq.]	7.40E-02	5.31E-04	4.45E-04	4.19E-03	6.04E-06	1.25E-04	2.61E-03	7.30E-06	-2.36E-03			
EP-terrestrial	[mol N eq.]	1.47E+00	5.67E-03	3.65E-03	1.35E-02	6.94E-05	1.34E-03	2.98E-02	7.83E-05	-3.34E-02			
POCP	[kg NMVOC eq.]	1.28E-01	2.13E-03	1.26E-03	2.24E-03	1.69E-05	4.68E-04	8.87E-03	2.72E-05	-1.04E-02			
ADPm ¹	[kg Sb eq.]	1.05E-04	9.16E-07	4.54E-06	3.15E-06	1.36E-07	2.10E-07	7.76E-06	3.51E-09	-9.67E-06			
ADPf ¹	[MJ]	3.04E+02	4.96E+00	4.97E+00	3.33E+00	9.99E-02	9.74E-01	1.68E+01	6.29E-02	-2.43E+01			
WDP ¹	[m³ world eq. deprived]	1.66E+01	2.40E-02	1.81E-01	5.28E-01	1.15E-03	4.30E-03	1.91E-01	2.78E-03	-4.54E-01			
Caption	GWP-total = Global wa warming, land use and la EP-marine = Eutrophication creation; ADPm = Depling The numbers are give	nd conversion on (nutrient loa etion of abiotic	a; ODP = Ozo ading) – marir c resources –	ne depletion; he; EP- terrest minerals and 1.95E+02. Thi	AP = Acidifica trial = Eutroph metals; ADPf resources s number can	tion; EP-fresh ication (nutrie = Depletion o	water = Eutro nt loading) – to f abiotic fossil tten as: 1.95*	phication (nut errestrial; PO0 resources; W	rient loading) - CP = Photoch DP = Depletion	- freshwater; emical ozone on of water			
Disclaimer	¹ Results of this environ	mental indicat				.00000000011 certainties on		n or when the	re are limited i	esults with			

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PM	[Incidence of disease]	3.53E-06	2.69E-08	2.17E-08	5.67E-08	1.91E-10	5.43E-09	7.44E-08	4.05E-10	-1.58E-07			
IRP ²	[kBq U235 eq .]	3.71E+00	6.27E-03	3.36E-02	1.89E-02	2.21E-03	1.35E-03	8.75E-02	3.99E-05	-2.39E-01			
ETP- fw 1	[CTUe]	2.96E+02	2.60E+00	1.52E+00	5.20E+01	2.18E-02	5.15E-01	4.92E+00	3.09E-02	-6.01E+00			
HTP-c ¹	[CTUh]	7.46E-08	1.47E-10	1.15E-09	7.09E-10	4.43E-12	3.63E-11	4.90E-09	1.07E-12	-6.74E-09			
HTP- nc 1	[CTUh]	4.91E-07	4.63E-09	6.59E-09	2.15E-08	1.98E-10	9.67E-10	2.02E-08	3.05E-11	-2.97E-08			
SQP ¹	-	3.02E+03	5.04E+00	1.80E+00	3.14E+01	1.36E-01	7.31E-01	5.61E+00	1.25E-01	-2.32E+02			
Continu	PM = Particulate matter;		radiation - hu Human toxic						icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wh	hile 1.12E-11	would be			
Disclaimers	¹ Results of this environn	nental indicato	or should be u	sed with cauti	on, as the und	certainty on th	ese is high or	there are limit	ted results wit	h indicators.			
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE CONSUMPTION PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
PEAR	[MJ]	2.50E+02	7.27E-02	7.86E-01	1.54E+01	1.02E-01	1.54E-02	1.49E+00	5.33E-04	-4.47E+01				
PERM	[MJ]	1.72E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00				
PERT	[MJ]	4.22E+02	7.27E-02	7.86E-01	1.54E+01	1.02E-01	1.54E-02	1.49E+00	5.33E-04	-4.66E+01				
PENRE	[MJ]	2.96E+02	4.96E+00	4.97E+00	3.91E+00	9.99E-02	9.74E-01	1.68E+01	6.29E-02	-2.42E+01				
PENRM	[MJ]	1.00E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01				
PENRT	[MJ]	3.06E+02	4.96E+00	4.97E+00	3.91E+00	9.99E-02	9.74E-01	1.68E+01	6.29E-02	-2.43E+01				
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
FW	[^{m3}]	-1.75E+00	-2.10E-03	-1.45E-02	-2.67E-02	-2.59E-05	-4.74E-04	-8.08E-02	4.66E-05	1.09E-01				
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy; PENRM = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption													
	The numbers are give	en in 'scientific				also be rewri .000000000011		10 ⁻ or 195, wl	nile 1.12E-11	would be				

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RWD	[kg]	9.55E-04	1.63E-06	9.09E-06	5.09E-06	5.49E-07	3.53E-07	2.18E-05	1.01E-08	-6.39E-05				
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
Caption		HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy												
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be				

	BIOGENIC CARBON/CARBON PER M ²										
Parameters	Unit	At the factory gate									
Biogenic carbon content in the product	[kg C]	3.47									
Biogenic carbon content In the included packaging	[kg C]	0.47									
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$									





No. 6 Vesterby Firestop, Multipanels, 12 mm perforated, 20-29% opening

	ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
GWP-total	[kg CO ₂ eq.]	5.56E+00	3.18E-01	2.11E+00	7.76E-01	6.21E-03	6.35E-02	1.56E+01	2.64E-03	-1.72E+00			
GWP-fossil	[kg CO ₂ eq.]	1.99E+01	3.18E-01	3.79E-01	2.93E-01	6.20E-03	6.35E-02	1.64E+00	2.63E-03	-1.72E+00			
GWP-biogenic	[kg CO ₂ eq.]	-1.57E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.40E+01	0.00E+00	0.00E+00			
GWP-luluc	[kg CO ₂ eq.]	1.35E+00	1.48E-04	3.43E-04	4.83E-01	1.89E-05	3.05E-05	9.69E-04	1.55E-06	-3.58E-03			
ODP	[kg CFC 11 eq.]	8.32E-07	6.81E-09	4.10E-09	1.51E-08	1.39E-10	1.36E-09	3.53E-08	7.31E-11	-4.48E-08			
AP	[mol H+ eq.]	3.81E-01	1.29E-03	1.79E-03	3.26E-03	3.06E-05	2.89E-04	1.27E-02	1.90E-05	-1.41E-02			
EP-freshwater	[kg P eq.]	7.40E-03	2.22E-05	1.02E-04	5.20E-03	5.22E-06	4.46E-06	3.56E-04	2.10E-07	-6.54E-04			
EP-marine	[kg N eq.]	7.39E-02	4.87E-04	4.45E-04	3.72E-03	6.04E-06	1.15E-04	2.55E-03	7.30E-06	-2.26E-03			
EP-terrestrial	[mol N eq.]	1.47E+00	5.20E-03	3.65E-03	1.20E-02	6.94E-05	1.23E-03	2.92E-02	7.83E-05	-3.22E-02			
POCP	[kg NMVOC eq.]	1.27E-01	1.95E-03	1.26E-03	1.99E-03	1.69E-05	4.29E-04	8.68E-03	2.72E-05	-1.00E-02			
ADPm ¹	[kg Sb eq.]	1.04E-04	8.40E-07	4.54E-06	2.80E-06	1.36E-07	1.93E-07	7.69E-06	3.51E-09	-9.46E-06			
ADPf ¹	[MJ]	3.02E+02	4.55E+00	4.97E+00	2.96E+00	9.99E-02	8.93E-01	1.65E+01	6.29E-02	-2.35E+01			
WDP ¹	[m³ world eq. deprived]	1.65E+01	2.21E-02	1.81E-01	4.70E-01	1.15E-03	3.95E-03	1.91E-01	2.78E-03	-4.32E-01			
Caption	GWP-total = Global war warming, land use and lar EP-marine = Eutrophication creation; ADPm = Depling The numbers are give	nd conversion on (nutrient loa etion of abiotic	a; ODP = Ozo ading) – marir c resources –	ne depletion; he; EP- terrest minerals and 1.95E+02. Thi	AP = Acidifica trial = Eutroph metals; ADPf resources s number can	tion; EP-freshication (nutrier = Depletion o	water = Eutro nt loading) – to f abiotic fossil tten as: 1.95*	phication (nuti errestrial; POC resources; W	rient loading) - CP = Photoch DP = Depletion	- freshwater; emical ozone on of water			
Disclaimer	¹ Results of this environ	mental indicat			12*10 -11 or 0 tion as the unindicators.			n or when ther	re are limited i	results with			

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
PM	[Incidence of disease]	3.52E-06	2.47E-08	2.17E-08	5.04E-08	1.91E-10	4.98E-09	7.22E-08	4.05E-10	-1.50E-07				
IRP ²	[kBq U235 eq .]	3.70E+00	5.75E-03	3.36E-02	1.68E-02	2.21E-03	1.24E-03	8.59E-02	3.99E-05	-2.27E-01				
ETP- fw 1	[CTUe]	2.95E+02	2.38E+00	1.52E+00	4.62E+01	2.18E-02	4.73E-01	4.70E+00	3.09E-02	-5.74E+00				
HTP-c ¹	[CTUh] 7.45E-08 1.35E-10 1.15E-09 6.30E-10 4.43E-12 3.33E-11 4.88E-09 1.07E-12 -6.61													
HTP- nc 1	[CTUh]	4.89E-07	4.24E-09	6.59E-09	1.91E-08	1.98E-10	8.87E-10	1.95E-08	3.05E-11	-2.86E-08				
SQP ¹	-	3.02E+03	4.63E+00	1.80E+00	2.79E+01	1.36E-01	6.71E-01	5.38E+00	1.25E-01	-2.14E+02				
Continu	PM = Particulate matter;					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-				
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be				
Disclaimers	¹ Results of this environ	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.												
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in				





	RESOURCE USE PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
PEAR	[MJ]	2.50E+02	6.67E-02	7.86E-01	1.37E+01	1.02E-01	1.41E-02	1.47E+00	5.33E-04	-4.10E+01				
PERM	[MJ]	1.72E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00				
PERT	[MJ]	4.21E+02	6.67E-02	7.86E-01	1.37E+01	1.02E-01	1.41E-02	1.47E+00	5.33E-04	-4.30E+01				
PENRE	[MJ]	2.94E+02	4.55E+00	4.97E+00	3.48E+00	9.99E-02	8.93E-01	1.65E+01	6.29E-02	-2.34E+01				
PENRM	[MJ]	9.29E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01				
PENRT	[MJ]	3.03E+02	4.55E+00	4.97E+00	3.48E+00	9.99E-02	8.93E-01	1.65E+01	6.29E-02	-2.35E+01				
SM	[kg]	0.00E+00	0.00E+00	0.00E+00										
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00										
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00										
FW	[^{m3}]	-1.74E+00	-1.93E-03	-1.45E-02	-2.37E-02	-2.59E-05	-4.35E-04	-7.98E-02	4.66E-05	1.06E-01				
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be the same as 1.12*10 -11 or 0.00000000112.													

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RWD	[kg]	1.04E-03	1.91E-06	9.09E-06	5.09E-06	5.49E-07	4.12E-07	2.28E-05	1.01E-08	-7.11E-05				
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
Caption		HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy												
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wh	nile 1.12E-11	would be				

BIOGENIC CARBON/CARBON PER M ²									
Parameters	Unit	At the factory gate							
Biogenic carbon content in the product	[kg C]	3.14							
Biogenic carbon content In the included packaging	[kg C]	0.47							
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$							





No. 7 Vesterby Firestop, Multipanels, 12 mm perforated, 30-40% opening

	ENVIRONMENTAL IMPACTS PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
GWP-total	[kg CO ₂ eq.]	5.44E+00	2.89E-01	2.11E+00	6.79E-01	6.21E-03	5.78E-02	1.56E+01	2.64E-03	-1.67E+00				
GWP-fossil	[kg CO ₂ eq.]	1.98E+01	2.89E-01	3.79E-01	2.56E-01	6.20E-03	5.78E-02	1.61E+00	2.63E-03	-1.67E+00				
GWP-biogenic	[kg CO ₂ eq.]	-1.57E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.40E+01	0.00E+00	0.00E+00				
GWP-luluc	[kg CO ₂ eq.]	1.35E+00	1.34E-04	3.43E-04	4.23E-01	1.89E-05	2.78E-05	8.92E-04	1.55E-06	-3.30E-03				
ODP	[kg CFC 11 eq.]	8.30E-07	6.20E-09	4.10E-09	1.33E-08	1.39E-10	1.24E-09	3.49E-08	7.31E-11	-4.36E-08				
AP	[mol H+ eq.]	3.81E-01	1.17E-03	1.79E-03	2.86E-03	3.06E-05	2.63E-04	1.26E-02	1.90E-05	-1.37E-02				
EP-freshwater	[kg P eq.]	7.36E-03	2.02E-05	1.02E-04	4.55E-03	5.22E-06	4.06E-06	3.49E-04	2.10E-07	-6.28E-04				
EP-marine	[kg N eq.]	7.38E-02	4.43E-04	4.45E-04	3.26E-03	6.04E-06	1.04E-04	2.49E-03	7.30E-06	-2.15E-03				
EP-terrestrial	[mol N eq.]	1.47E+00	4.73E-03	3.65E-03	1.05E-02	6.94E-05	1.12E-03	2.86E-02	7.83E-05	-3.09E-02				
POCP	[kg NMVOC eq.]	1.27E-01	1.78E-03	1.26E-03	1.74E-03	1.69E-05	3.91E-04	8.49E-03	2.72E-05	-9.66E-03				
ADPm ¹	[kg Sb eq.]	1.03E-04	7.65E-07	4.54E-06	2.45E-06	1.36E-07	1.76E-07	7.62E-06	3.51E-09	-9.25E-06				
ADPf ¹	[MJ]	2.99E+02	4.14E+00	4.97E+00	2.59E+00	9.99E-02	8.13E-01	1.61E+01	6.29E-02	-2.27E+01				
WDP ¹	[m³ world eq. deprived]	1.65E+01	2.01E-02	1.81E-01	4.11E-01	1.15E-03	3.59E-03	1.91E-01	2.78E-03	-4.10E-01				
Caption	GWP-total = Global wa warming, land use and la EP-marine = Eutrophication creation; ADPm = Depl The numbers are give	nd conversion on (nutrient loa etion of abioti	a; ODP = Ozo ading) – marir c resources –	ne depletion; ane; EP- terrest minerals and 1.95E+02. Thi	AP = Acidifica rial = Eutroph metals; ADPf resources s number can	tion; EP-fresh ication (nutried = Depletion of also be rewrited	water = Eutro nt loading) – to if abiotic fossil tten as: 1.95*	phication (nut errestrial; PO0 resources; W	rient loading) - CP = Photoch DP = Depletion	- freshwater; emical ozone on of water				
Disclaimer	¹ Results of this environ	mental indica				.000000000011 certainties on		n or when the	re are limited i	results with				

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	С3	C4	D			
PM	[Incidence of disease]	3.52E-06	2.25E-08	2.17E-08	4.41E-08	1.91E-10	4.54E-09	7.01E-08	4.05E-10	-1.41E-07			
IRP ²	[kBq U235 eq .]	3.69E+00	5.23E-03	3.36E-02	1.47E-02	2.21E-03	1.13E-03	8.42E-02	3.99E-05	-2.14E-01			
ETP- fw ¹	[CTUe]	2.95E+02	2.17E+00	1.52E+00	4.04E+01	2.18E-02	4.30E-01	4.48E+00	3.09E-02	-5.48E+00			
HTP-c ¹	[CTUh]	7.44E-08	1.23E-10	1.15E-09	5.51E-10	4.43E-12	3.03E-11	4.85E-09	1.07E-12	-6.47E-09			
HTP- nc 1	[CTUh]	4.88E-07	3.86E-09	6.59E-09	1.67E-08	1.98E-10	8.07E-10	1.88E-08	3.05E-11	-2.75E-08			
SQP 1	-	3.02E+03	4.21E+00	1.80E+00	2.44E+01	1.36E-01	6.11E-01	5.15E+00	1.25E-01	-1.95E+02			
O-retion.	PM = Particulate matter; I		radiation - hu Human toxic						icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be			
Disclaimers	¹ Results of this environ	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.											
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE USE PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
PEAR	[MJ]	2.49E+02	6.07E-02	7.86E-01	1.20E+01	1.02E-01	1.29E-02	1.45E+00	5.33E-04	-3.74E+01				
PERM	[MJ]	1.72E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00				
PERT	[MJ]	4.21E+02	6.07E-02	7.86E-01	1.20E+01	1.02E-01	1.29E-02	1.45E+00	5.33E-04	-3.93E+01				
PENRE	[MJ]	2.92E+02	4.14E+00	4.97E+00	3.04E+00	9.99E-02	8.13E-01	1.61E+01	6.29E-02	-2.25E+01				
PENRM	[MJ]	8.57E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01				
PENRT	[MJ]	3.01E+02	4.14E+00	4.97E+00	3.04E+00	9.99E-02	8.13E-01	1.61E+01	6.29E-02	-2.27E+01				
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
FW	[^{m3}]	-1.73E+00	-1.75E-03	-1.45E-02	-2.08E-02	-2.59E-05	-3.96E-04	-7.89E-02	4.66E-05	1.03E-01				
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be													
	i ne numbers are give	en in scientific				.000000000011		10 - or 195, W	niie 1.12E-11	would be				

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
RWD	[kg]	9.49E-04	1.75E-06	9.09E-06	4.53E-06	5.49E-07	3.77E-07	2.22E-05	1.01E-08	-6.70E-05			
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
Caption		HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy											
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be			

BIOGENIC CARBON/CARBON PER M ²									
Parameters	Unit	At the factory gate							
Biogenic carbon content in the product	[kg C]	2.81							
Biogenic carbon content In the included packaging	[kg C]	0.47							
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$							





No. 8 Vesterby Firestop, Multipanels, 15 mm slats, 10-19% opening

ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
GWP-total	[kg CO ₂ eq.]	5.17E+00	4.05E-01	2.11E+00	8.73E-01	6.21E-03	8.10E-02	1.71E+01	2.64E-03	-1.88E+00		
GWP-fossil	[kg CO ₂ eq.]	2.09E+01	4.05E-01	3.79E-01	3.29E-01	6.20E-03	8.09E-02	1.73E+00	2.63E-03	-1.87E+00		
GWP-biogenic	[kg CO ₂ eq.]	-1.71E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.54E+01	0.00E+00	0.00E+00		
GWP-luluc	[kg CO ₂ eq.]	1.36E+00	1.88E-04	3.43E-04	5.44E-01	1.89E-05	3.89E-05	1.20E-03	1.55E-06	-4.45E-03		
ODP	[kg CFC 11 eq.]	8.52E-07	8.68E-09	4.10E-09	1.70E-08	1.39E-10	1.73E-09	3.65E-08	7.31E-11	-4.86E-08		
AP	[mol H+ eq.]	3.90E-01	1.64E-03	1.79E-03	3.67E-03	3.06E-05	3.68E-04	1.32E-02	1.90E-05	-1.51E-02		
EP-freshwater	[kg P eq.]	7.66E-03	2.83E-05	1.02E-04	5.85E-03	5.22E-06	5.69E-06	3.76E-04	2.10E-07	-7.38E-04		
EP-marine	[kg N eq.]	7.65E-02	6.21E-04	4.45E-04	4.19E-03	6.04E-06	1.46E-04	2.74E-03	7.30E-06	-2.59E-03		
EP-terrestrial	[mol N eq.]	1.50E+00	6.63E-03	3.65E-03	1.35E-02	6.94E-05	1.57E-03	3.11E-02	7.83E-05	-3.61E-02		
POCP	[kg NMVOC eq.]	1.36E-01	2.49E-03	1.26E-03	2.24E-03	1.69E-05	5.47E-04	9.26E-03	2.72E-05	-1.12E-02		
ADPm ¹	[kg Sb eq.]	1.08E-04	1.07E-06	4.54E-06	3.15E-06	1.36E-07	2.46E-07	7.90E-06	3.51E-09	-1.01E-05		
ADPf ¹	[MJ]	3.22E+02	5.81E+00	4.97E+00	3.33E+00	9.99E-02	1.14E+00	1.76E+01	6.29E-02	-2.61E+01		
WDP ¹	[m³ world eq. deprived]	1.75E+01	2.81E-02	1.81E-01	5.28E-01	1.15E-03	5.03E-03	1.91E-01	2.78E-03	-5.01E-01		
Caption	GWP-total = Global wa warming, land use and la EP-marine = Eutrophication creation; ADPm = Depl The numbers are give	nd conversion on (nutrient loa etion of abiotic	a; ODP = Ozo ading) – marir c resources –	ne depletion; ine; EP- terrest minerals and 1.95E+02. Thi	AP = Acidifica rial = Eutroph metals; ADPf resources s number can	tion; EP-fresh ication (nutried = Depletion of also be rewrited	water = Eutro nt loading) – to if abiotic fossil tten as: 1.95*	phication (nut errestrial; PO0 resources; W	rient loading) - CP = Photoch DP = Depletion	- freshwater; emical ozone on of water		
Disclaimer	¹ Results of this environ	mental indicat				.000000000011 certainties on		n or when the	re are limited i	results with		

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PM	[Incidence of disease]	3.65E-06	3.15E-08	2.17E-08	5.67E-08	1.91E-10	6.35E-09	7.88E-08	4.05E-10	-1.77E-07			
IRP ²	[kBq U235 eq .]	4.05E+00	7.33E-03	3.36E-02	1.89E-02	2.21E-03	1.58E-03	9.09E-02	3.99E-05	-2.67E-01			
ETP- fw 1	[CTUe]	3.00E+02	3.04E+00	1.52E+00	5.20E+01	2.18E-02	6.02E-01	5.37E+00	3.09E-02	-6.58E+00			
HTP-c ¹	[CTUh]	[CTUh] 8.03E-08 1.72E-10 1.15E-09 7.09E-10 4.43E-12 4.24E-11 4.95E-09 1.07E-12 -7.03E-0											
HTP- nc 1	[CTUh]	5.08E-07	5.41E-09	6.59E-09	2.15E-08	1.98E-10	1.13E-09	2.17E-08	3.05E-11	-3.21E-08			
SQP ¹	-	3.19E+03	5.90E+00	1.80E+00	3.14E+01	1.36E-01	8.55E-01	6.09E+00	1.25E-01	-2.72E+02			
Continu	PM = Particulate matter;					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri .00000000001		10 ² or 195, wl	nile 1.12E-11	would be			
Disclaimers	¹ Results of this environ	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.											
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE USE PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
PEAR	[MJ]	2.69E+02	8.50E-02	7.86E-01	1.54E+01	1.02E-01	1.80E-02	1.53E+00	5.33E-04	-5.25E+01				
PERM	[MJ]	1.88E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00				
PERT	[MJ]	4.57E+02	8.50E-02	7.86E-01	1.54E+01	1.02E-01	1.80E-02	1.53E+00	5.33E-04	-5.44E+01				
PENRE	[MJ]	3.14E+02	5.81E+00	4.97E+00	3.91E+00	9.99E-02	1.14E+00	1.76E+01	6.29E-02	-2.59E+01				
PENRM	[MJ]	9.74E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01				
PENRT	[MJ]	3.24E+02	5.81E+00	4.97E+00	3.91E+00	9.99E-02	1.14E+00	1.76E+01	6.29E-02	-2.61E+01				
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
FW	[^{m3}]	-1.85E+00	-2.46E-03	-1.45E-02	-2.67E-02	-2.59E-05	-5.54E-04	-8.26E-02	4.66E-05	1.16E-01				
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be													
	The numbers are give	en in scientific				.000000000011		10 - 01 195, WI	ille 1.12E-11	would be				

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
RWD	[kg]	8.56E-04	1.58E-06	9.09E-06	3.96E-06	5.49E-07	3.41E-07	2.17E-05	1.01E-08	-6.29E-05			
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
Caption		HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy											
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be			

BIOGENIC CARBON/CARBON PER M ²										
Parameters	Unit	At the factory gate								
Biogenic carbon content in the product	[kg C]	4.18								
Biogenic carbon content In the included packaging	[kg C]	0.47								
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$								





No. 9 Vesterby Firestop, Multipanels, 15 mm slats, 20-29% opening

ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
GWP-total	[kg CO ₂ eq.]	5.51E+00	3.70E-01	2.11E+00	7.76E-01	6.21E-03	7.40E-02	1.55E+01	2.64E-03	-1.82E+00		
GWP-fossil	[kg CO ₂ eq.]	1.97E+01	3.70E-01	3.79E-01	2.93E-01	6.20E-03	7.39E-02	1.69E+00	2.63E-03	-1.81E+00		
GWP-biogenic	[kg CO ₂ eq.]	-1.56E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.39E+01	0.00E+00	0.00E+00		
GWP-luluc	[kg CO ₂ eq.]	1.35E+00	1.72E-04	3.43E-04	4.83E-01	1.89E-05	3.55E-05	1.11E-03	1.55E-06	-4.11E-03		
ODP	[kg CFC 11 eq.]	8.28E-07	7.93E-09	4.10E-09	1.51E-08	1.39E-10	1.58E-09	3.60E-08	7.31E-11	-4.71E-08		
AP	[mol H+ eq.]	3.80E-01	1.50E-03	1.79E-03	3.26E-03	3.06E-05	3.36E-04	1.30E-02	1.90E-05	-1.47E-02		
EP-freshwater	[kg P eq.]	7.31E-03	2.58E-05	1.02E-04	5.20E-03	5.22E-06	5.19E-06	3.68E-04	2.10E-07	-7.05E-04		
EP-marine	[kg N eq.]	7.36E-02	5.67E-04	4.45E-04	3.72E-03	6.04E-06	1.33E-04	2.66E-03	7.30E-06	-2.46E-03		
EP-terrestrial	[mol N eq.]	1.46E+00	6.05E-03	3.65E-03	1.20E-02	6.94E-05	1.43E-03	3.03E-02	7.83E-05	-3.46E-02		
POCP	[kg NMVOC eq.]	1.26E-01	2.27E-03	1.26E-03	1.99E-03	1.69E-05	4.99E-04	9.03E-03	2.72E-05	-1.07E-02		
ADPm ¹	[kg Sb eq.]	1.03E-04	9.78E-07	4.54E-06	2.80E-06	1.36E-07	2.24E-07	7.81E-06	3.51E-09	-9.86E-06		
ADPf ¹	[MJ]	2.99E+02	5.30E+00	4.97E+00	2.96E+00	9.99E-02	1.04E+00	1.71E+01	6.29E-02	-2.51E+01		
WDP ¹	[m³ world eq. deprived]	1.63E+01	2.57E-02	1.81E-01	4.70E-01	1.15E-03	4.59E-03	1.91E-01	2.78E-03	-4.74E-01		
Caption	GWP-total = Global war warming, land use and lar EP-marine = Eutrophication creation; ADPm = Depl	nd conversion on (nutrient loa etion of abiotic	n; ODP = Ozor ading) – marir c resources –	ne depletion; ne; EP- terrest minerals and	AP = Acidifica trial = Eutroph metals; ADPf resources	tion; EP-fresh ication (nutrie = Depletion o	water = Eutro nt loading) – to f abiotic fossil	phication (nut errestrial; PO resources; W	rient loading) - CP = Photoch DP = Depletion	- freshwater; emical ozone on of water		
	The numbers are give	en in 'scientific				also be rewri .00000000001		10 ² or 195, wl	nile 1.12E-11	would be		
Disclaimer	¹ Results of this environ	mental indicat	or should be	used with cau	tion as the un- indicators.	certainties on	these are higl	n or when the	re are limited i	esults with		

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PM	[Incidence of disease]	3.51E-06	2.88E-08	2.17E-08	5.04E-08	1.91E-10	5.80E-09	7.62E-08	4.05E-10	-1.66E-07			
IRP ²	[kBq U235 eq .]	3.68E+00	6.69E-03	3.36E-02	1.68E-02	2.21E-03	1.44E-03	8.89E-02	3.99E-05	-2.51E-01			
ETP- fw 1	[CTUe]	2.95E+02	2.78E+00	1.52E+00	4.62E+01	2.18E-02	5.50E-01	5.10E+00	3.09E-02	-6.25E+00			
HTP-c ¹	[CTUh]	[CTUh] 7.38E-08 1.57E-10 1.15E-09 6.30E-10 4.43E-12 3.88E-11 4.92E-09 1.07E-12 -6.86E-0											
HTP- nc 1	[CTUh]	4.87E-07	4.94E-09	6.59E-09	1.91E-08	1.98E-10	1.03E-09	2.08E-08	3.05E-11	-3.08E-08			
SQP ¹	-	3.00E+03	5.39E+00	1.80E+00	2.79E+01	1.36E-01	7.81E-01	5.81E+00	1.25E-01	-2.49E+02			
Continu	PM = Particulate matter;					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be			
Disclaimers	¹ Results of this environ	mental indicat	or should be u	used with cau	tion as the unindicators.	certainties on	these are high	n or when the	re are limited	results with			
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE USE PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
PEAR	[MJ]	2.48E+02	7.76E-02	7.86E-01	1.37E+01	1.02E-01	1.65E-02	1.50E+00	5.33E-04	-4.80E+01				
PERM	[MJ]	1.71E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00				
PERT	[MJ]	4.18E+02	7.76E-02	7.86E-01	1.37E+01	1.02E-01	1.65E-02	1.50E+00	5.33E-04	-4.99E+01				
PENRE	[MJ]	2.92E+02	5.30E+00	4.97E+00	3.48E+00	9.99E-02	1.04E+00	1.71E+01	6.29E-02	-2.49E+01				
PENRM	[MJ]	8.74E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01				
PENRT	[MJ]	3.01E+02	5.30E+00	4.97E+00	3.48E+00	9.99E-02	1.04E+00	1.71E+01	6.29E-02	-2.51E+01				
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
FW	[^{m3}]	-1.71E+00	-2.25E-03	-1.45E-02	-2.37E-02	-2.59E-05	-5.06E-04	-8.15E-02	4.66E-05	1.12E-01				
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be													
	i ne numbers are give	en in Scientific				.000000000011		10 - OF 195, WI	ille 1.12E-11	would be				

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
RWD	[kg]	1.13E-03	1.91E-06	9.09E-06	5.09E-06	5.49E-07	4.12E-07	2.28E-05	1.01E-08	-7.11E-05			
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
Caption		HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy											
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wh	nile 1.12E-11	would be			

	BIOGENIC CARBON/CARBON PER M ²								
Parameters	Unit	At the factory gate							
Biogenic carbon content in the product	[kg C]	3.77							
Biogenic carbon content In the included packaging	[kg C]	0.47							
Note	1 kg of biogenic carbon is equivalent to 44/12 kg of CO ₂								





No. 10 Vesterby Firestop, Multipanels, 15 mm slats, 30-40% opening

ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
GWP-total	[kg CO ₂ eq.]	5.86E+00	3.35E-01	2.11E+00	6.79E-01	6.21E-03	6.70E-02	1.40E+01	2.64E-03	-1.76E+00		
GWP-fossil	[kg CO ₂ eq.]	1.86E+01	3.35E-01	3.79E-01	2.56E-01	6.20E-03	6.69E-02	1.66E+00	2.63E-03	-1.75E+00		
GWP-biogenic	[kg CO ₂ eq.]	-1.41E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.24E+01	0.00E+00	0.00E+00		
GWP-luluc	[kg CO ₂ eq.]	1.35E+00	1.56E-04	3.43E-04	4.23E-01	1.89E-05	3.21E-05	1.02E-03	1.55E-06	-3.77E-03		
ODP	[kg CFC 11 eq.]	8.04E-07	7.17E-09	4.10E-09	1.33E-08	1.39E-10	1.43E-09	3.55E-08	7.31E-11	-4.56E-08		
AP	[mol H+ eq.]	3.71E-01	1.35E-03	1.79E-03	2.86E-03	3.06E-05	3.05E-04	1.28E-02	1.90E-05	-1.43E-02		
EP-freshwater	[kg P eq.]	6.97E-03	2.34E-05	1.02E-04	4.55E-03	5.22E-06	4.70E-06	3.60E-04	2.10E-07	-6.72E-04		
EP-marine	[kg N eq.]	7.06E-02	5.14E-04	4.45E-04	3.26E-03	6.04E-06	1.21E-04	2.59E-03	7.30E-06	-2.33E-03		
EP-terrestrial	[mol N eq.]	1.43E+00	5.48E-03	3.65E-03	1.05E-02	6.94E-05	1.29E-03	2.95E-02	7.83E-05	-3.30E-02		
POCP	[kg NMVOC eq.]	1.16E-01	2.06E-03	1.26E-03	1.74E-03	1.69E-05	4.52E-04	8.80E-03	2.72E-05	-1.03E-02		
ADPm ¹	[kg Sb eq.]	9.80E-05	8.86E-07	4.54E-06	2.45E-06	1.36E-07	2.03E-07	7.73E-06	3.51E-09	-9.60E-06		
ADPf ¹	[MJ]	2.75E+02	4.80E+00	4.97E+00	2.59E+00	9.99E-02	9.41E-01	1.67E+01	6.29E-02	-2.41E+01		
WDP ¹	[m³ world eq. deprived]	1.52E+01	2.32E-02	1.81E-01	4.11E-01	1.15E-03	4.16E-03	1.91E-01	2.78E-03	-4.47E-01		
Caption	GWP-total = Global warming, total; GWP-fossil = Global warming, fossil fuels; GWP- biogenic = Global warming, biogenic; GWP- luluc = Global warming, land use and land conversion; ODP = Ozone depletion; AP = Acidification; EP-freshwater = Eutrophication (nutrient loading) – freshwater; EP-marine = Eutrophication (nutrient loading) – marine; EP- terrestrial = Eutrophication (nutrient loading) – terrestrial; POCP = Photochemical ozone creation; ADPm = Depletion of abiotic resources – minerals and metals; ADPf = Depletion of abiotic fossil resources; WDP = Depletion of water resources The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 of 1.95, while 1.12E-11 would be											
Disclaimer	¹ Results of this environ	mental indicat				.00000000011 certainties on		n or when the	re are limited i	esults with		

		ADDITIO	ONAL EN	VIRONME	NTAL IM	PACTS P	ER M ²				
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D	
PM	[Incidence of disease]	3.36E-06	2.61E-08	2.17E-08	4.41E-08	1.91E-10	5.25E-09	7.35E-08	4.05E-10	-1.56E-07	
IRP ²	[kBq U235 eq .]	3.32E+00	6.06E-03	3.36E-02	1.47E-02	2.21E-03	1.30E-03	8.69E-02	3.99E-05	-2.35E-01	
ETP- fw 1	[CTUe]	2.89E+02	2.51E+00	1.52E+00	4.04E+01	2.18E-02	4.98E-01	4.83E+00	3.09E-02	-5.92E+00	
HTP-c ¹	[CTUh] 6.73E-08 1.42E-10 1.15E-09 5.51E-10 4.43E-12 3.51E-11 4.89E-09 1.07E-12 -6.70E-										
HTP- nc 1	[CTUh]	4.65E-07	4.47E-09	6.59E-09	1.67E-08	1.98E-10	9.35E-10	2.00E-08	3.05E-11	-2.94E-08	
SQP ¹	-	2.81E+03	4.87E+00	1.80E+00	2.44E+01	1.36E-01	7.07E-01	5.52E+00	1.25E-01	-2.26E+02	
Continu	PM = Particulate matter;					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-	
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be	
Disclaimers	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.										
	² This impact category mainly covers the potential impact of low-dose ionising radiation on human health in the nuclear fuel chain. It does not take into account effects resulting from possible nuclear accidents, occupational exposure or exposure due to the disposal of radioactive waste in underground facilities. Potential ionising radiation from the soil, from radon and from some building materials is also not measured by this indicator.										





			RES	OURCE (JSE PER	M ²				
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
PEAR	[MJ]	2.26E+02	7.03E-02	7.86E-01	1.20E+01	1.02E-01	1.49E-02	1.48E+00	5.33E-04	-4.35E+01
PERM	[MJ]	1.54E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00
PERT	[MJ]	3.80E+02	7.03E-02	7.86E-01	1.20E+01	1.02E-01	1.49E-02	1.48E+00	5.33E-04	-4.54E+01
PENRE	[MJ]	2.69E+02	4.80E+00	4.97E+00	3.04E+00	9.99E-02	9.41E-01	1.67E+01	6.29E-02	-2.39E+01
PENRM	[MJ]	7.75E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01
PENRT	[MJ]	2.77E+02	4.80E+00	4.97E+00	3.04E+00	9.99E-02	9.41E-01	1.67E+01	6.29E-02	-2.41E+01
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[^{m3}]	-1.58E+00	-2.03E-03	-1.45E-02	-2.08E-02	-2.59E-05	-4.58E-04	-8.04E-02	4.66E-05	1.08E-01
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of non-renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.									

		WASTE	CATEGO	RIES ANI	OUTPU	T FLOW P	PER M ²				
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D	
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
RWD	[kg]	1.13E-03	1.75E-06	9.09E-06	4.53E-06	5.49E-07	3.77E-07	2.22E-05	1.01E-08	-6.70E-05	
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Caption	HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy										
	The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.										

	BIOGENIC CARBON/CARBON PER M ²									
Parameters	Unit	At the factory gate								
Biogenic carbon content in the product	[kg C]	ag C] 3.36								
Biogenic carbon content In the included packaging	[kg C]	0.47								
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$								





No. 11 Vesterby Firestop, Multipanels, 15 mm perforated, 10-19% opening

ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
GWP-total	[kg CO ₂ eq.]	4.70E+00	4.05E-01	2.11E+00	8.73E-01	6.21E-03	8.10E-02	1.86E+01	2.64E-03	-1.88E+00		
GWP-fossil	[kg CO ₂ eq.]	2.19E+01	4.05E-01	3.79E-01	3.29E-01	6.20E-03	8.09E-02	1.73E+00	2.63E-03	-1.87E+00		
GWP-biogenic	[kg CO ₂ eq.]	-1.86E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.69E+01	0.00E+00	0.00E+00		
GWP-luluc	[kg CO ₂ eq.]	1.36E+00	1.88E-04	3.43E-04	5.44E-01	1.89E-05	3.89E-05	1.20E-03	1.55E-06	-4.45E-03		
ODP	[kg CFC 11 eq.]	8.73E-07	8.68E-09	4.10E-09	1.70E-08	1.39E-10	1.73E-09	3.65E-08	7.31E-11	-4.86E-08		
AP	[mol H+ eq.]	3.99E-01	1.64E-03	1.79E-03	3.67E-03	3.06E-05	3.68E-04	1.32E-02	1.90E-05	-1.51E-02		
EP-freshwater	[kg P eq.]	7.97E-03	2.83E-05	1.02E-04	5.85E-03	5.22E-06	5.69E-06	3.76E-04	2.10E-07	-7.38E-04		
EP-marine	[kg N eq.]	7.94E-02	6.21E-04	4.45E-04	4.19E-03	6.04E-06	1.46E-04	2.74E-03	7.30E-06	-2.59E-03		
EP-terrestrial	[mol N eq.]	1.53E+00	6.63E-03	3.65E-03	1.35E-02	6.94E-05	1.57E-03	3.11E-02	7.83E-05	-3.61E-02		
POCP	[kg NMVOC eq.]	1.46E-01	2.49E-03	1.26E-03	2.24E-03	1.69E-05	5.47E-04	9.26E-03	2.72E-05	-1.12E-02		
ADPm ¹	[kg Sb eq.]	1.12E-04	1.07E-06	4.54E-06	3.15E-06	1.36E-07	2.46E-07	7.90E-06	3.51E-09	-1.01E-05		
ADPf ¹	[MJ]	3.44E+02	5.81E+00	4.97E+00	3.33E+00	9.99E-02	1.14E+00	1.76E+01	6.29E-02	-2.61E+01		
WDP ¹	[m³ world eq. deprived]	1.86E+01	2.81E-02	1.81E-01	5.28E-01	1.15E-03	5.03E-03	1.91E-01	2.78E-03	-5.01E-01		
Caption	GWP-total = Global warming, total; GWP-fossil = Global warming, fossil fuels; GWP- biogenic = Global warming, biogenic; GWP- luluc = Global warming, land use and land conversion; ODP = Ozone depletion; AP = Acidification; EP-freshwater = Eutrophication (nutrient loading) – freshwater; EP-marine = Eutrophication (nutrient loading) – marine; EP- terrestrial = Eutrophication (nutrient loading) – terrestrial; POCP = Photochemical ozone creation; ADPm = Depletion of abiotic resources – minerals and metals; ADPf = Depletion of abiotic fossil resources; WDP = Depletion of water resources											
	The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.											
Disclaimer	¹ Results of this environ	mental indicat	or should be	used with cau	tion as the un- indicators.	certainties on	these are higl	n or when the	re are limited i	esults with		

		ADDITIO	ONAL EN	VIRONME	NTAL IM	PACTS P	ER M ²				
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D	
PM	[Incidence of disease]	3.80E-06	3.15E-08	2.17E-08	5.67E-08	1.91E-10	6.35E-09	7.88E-08	4.05E-10	-1.77E-07	
IRP ²	[kBq U235 eq .]	4.40E+00	7.33E-03	3.36E-02	1.89E-02	2.21E-03	1.58E-03	9.09E-02	3.99E-05	-2.67E-01	
ETP- fw 1	[CTUe]	3.05E+02	3.04E+00	1.52E+00	5.20E+01	2.18E-02	6.02E-01	5.37E+00	3.09E-02	-6.58E+00	
HTP-c ¹	[CTUh] 8.67E-08 1.72E-10 1.15E-09 7.09E-10 4.43E-12 4.24E-11 4.95E-09 1.07E-12 -7.03E-1										
HTP- nc 1	[CTUh]	5.28E-07	5.41E-09	6.59E-09	2.15E-08	1.98E-10	1.13E-09	2.17E-08	3.05E-11	-3.21E-08	
SQP ¹	-	3.38E+03	5.90E+00	1.80E+00	3.14E+01	1.36E-01	8.55E-01	6.09E+00	1.25E-01	-2.72E+02	
Continu	PM = Particulate matter;					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-	
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be	
Disclaimers	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.										
	² This impact category mainly covers the potential impact of low-dose ionising radiation on human health in the nuclear fuel chain. It does not take into account effects resulting from possible nuclear accidents, occupational exposure or exposure due to the disposal of radioactive waste in underground facilities. Potential ionising radiation from the soil, from radon and from some building materials is also not measured by this indicator.										





			RES	OURCE (JSE PER	M ²				
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
PEAR	[MJ]	2.91E+02	8.50E-02	7.86E-01	1.54E+01	1.02E-01	1.80E-02	1.53E+00	5.33E-04	-5.25E+01
PERM	[MJ]	2.05E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00
PERT	[MJ]	4.95E+02	8.50E-02	7.86E-01	1.54E+01	1.02E-01	1.80E-02	1.53E+00	5.33E-04	-5.44E+01
PENRE	[MJ]	3.35E+02	5.81E+00	4.97E+00	3.91E+00	9.99E-02	1.14E+00	1.76E+01	6.29E-02	-2.59E+01
PENRM	[MJ]	1.00E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01
PENRT	[MJ]	3.45E+02	5.81E+00	4.97E+00	3.91E+00	9.99E-02	1.14E+00	1.76E+01	6.29E-02	-2.61E+01
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[^{m3}]	-1.98E+00	-2.46E-03	-1.45E-02	-2.67E-02	-2.59E-05	-5.54E-04	-8.26E-02	4.66E-05	1.16E-01
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be the same as 1.12*10 -11 or 0.000000000112.									

		WASTE	CATEGO	RIES ANI	OUTPU	T FLOW P	PER M ²				
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D	
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
RWD	[kg]	1.13E-03	1.58E-06	9.09E-06	3.96E-06	5.49E-07	3.41E-07	2.17E-05	1.01E-08	-6.29E-05	
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Caption	HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy										
	The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.										

BIOGENIC CARBON/CARBON PER M ²									
Parameters	Unit	At the factory gate							
Biogenic carbon content in the product	[kg C]	kg C] 4.18							
Biogenic carbon content In the included packaging	[kg C]	0.47							
Note 1 kg of biogenic carbon is equivalent to 44/12 kg of CO 2									





No. 12 Vesterby Firestop, Multipanels, 15 mm perforated, 20-29% opening

ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
GWP-total	[kg CO ₂ eq.]	4.58E+00	3.70E-01	2.11E+00	7.76E-01	6.21E-03	7.40E-02	1.85E+01	2.64E-03	-1.82E+00		
GWP-fossil	[kg CO ₂ eq.]	2.18E+01	3.70E-01	3.79E-01	2.93E-01	6.20E-03	7.39E-02	1.69E+00	2.63E-03	-1.81E+00		
GWP-biogenic	[kg CO ₂ eq.]	-1.86E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.69E+01	0.00E+00	0.00E+00		
GWP-luluc	[kg CO ₂ eq.]	1.36E+00	1.72E-04	3.43E-04	4.83E-01	1.89E-05	3.55E-05	1.11E-03	1.55E-06	-4.11E-03		
ODP	[kg CFC 11 eq.]	8.71E-07	7.93E-09	4.10E-09	1.51E-08	1.39E-10	1.58E-09	3.60E-08	7.31E-11	-4.71E-08		
AP	[mol H+ eq.]	3.99E-01	1.50E-03	1.79E-03	3.26E-03	3.06E-05	3.36E-04	1.30E-02	1.90E-05	-1.47E-02		
EP-freshwater	[kg P eq.]	7.93E-03	2.58E-05	1.02E-04	5.20E-03	5.22E-06	5.19E-06	3.68E-04	2.10E-07	-7.05E-04		
EP-marine	[kg N eq.]	7.93E-02	5.67E-04	4.45E-04	3.72E-03	6.04E-06	1.33E-04	2.66E-03	7.30E-06	-2.46E-03		
EP-terrestrial	[mol N eq.]	1.53E+00	6.05E-03	3.65E-03	1.20E-02	6.94E-05	1.43E-03	3.03E-02	7.83E-05	-3.46E-02		
POCP	[kg NMVOC eq.]	1.46E-01	2.27E-03	1.26E-03	1.99E-03	1.69E-05	4.99E-04	9.03E-03	2.72E-05	-1.07E-02		
ADPm ¹	[kg Sb eq.]	1.12E-04	9.78E-07	4.54E-06	2.80E-06	1.36E-07	2.24E-07	7.81E-06	3.51E-09	-9.86E-06		
ADPf ¹	[MJ]	3.41E+02	5.30E+00	4.97E+00	2.96E+00	9.99E-02	1.04E+00	1.71E+01	6.29E-02	-2.51E+01		
WDP ¹	[m³ world eq. deprived]	1.85E+01	2.57E-02	1.81E-01	4.70E-01	1.15E-03	4.59E-03	1.91E-01	2.78E-03	-4.74E-01		
Caption	GWP-total = Global warming, total; GWP-fossil = Global warming, fossil fuels; GWP- biogenic = Global warming, biogenic; GWP- luluc = Global warming, land use and land conversion; ODP = Ozone depletion; AP = Acidification; EP-freshwater = Eutrophication (nutrient loading) – freshwater; EP-marine = Eutrophication (nutrient loading) – marine; EP- terrestrial = Eutrophication (nutrient loading) – terrestrial; POCP = Photochemical ozone creation; ADPm = Depletion of abiotic resources – minerals and metals; ADPf = Depletion of abiotic fossil resources; WDP = Depletion of water resources The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be											
Disclaimer	the same as 1.12*10 · 11 or 0.000000000112. 1 Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.											

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PM	[Incidence of disease]	3.79E-06	2.88E-08	2.17E-08	5.04E-08	1.91E-10	5.80E-09	7.62E-08	4.05E-10	-1.66E-07			
IRP ²	[kBq U235 eq .]	4.39E+00	6.69E-03	3.36E-02	1.68E-02	2.21E-03	1.44E-03	8.89E-02	3.99E-05	-2.51E-01			
ETP- fw 1	[CTUe]	3.05E+02	2.78E+00	1.52E+00	4.62E+01	2.18E-02	5.50E-01	5.10E+00	3.09E-02	-6.25E+00			
HTP-c ¹	[CTUh]	8.66E-08	1.57E-10	1.15E-09	6.30E-10	4.43E-12	3.88E-11	4.92E-09	1.07E-12	-6.86E-09			
HTP- nc 1	[CTUh]	5.27E-07	4.94E-09	6.59E-09	1.91E-08	1.98E-10	1.03E-09	2.08E-08	3.05E-11	-3.08E-08			
SQP ¹	-	3.38E+03	5.39E+00	1.80E+00	2.79E+01	1.36E-01	7.81E-01	5.81E+00	1.25E-01	-2.49E+02			
Continu	PM = Particulate matter;					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be			
Disclaimers	¹ Results of this environ	mental indicat	or should be u	used with cau	tion as the unindicators.	certainties on	these are high	h or when the	re are limited	results with			
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE USE PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
PEAR	[MJ]	2.90E+02	7.76E-02	7.86E-01	1.37E+01	1.02E-01	1.65E-02	1.50E+00	5.33E-04	-4.80E+01				
PERM	[MJ]	2.05E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00				
PERT	[MJ]	4.95E+02	7.76E-02	7.86E-01	1.37E+01	1.02E-01	1.65E-02	1.50E+00	5.33E-04	-4.99E+01				
PENRE	[MJ]	3.34E+02	5.30E+00	4.97E+00	3.48E+00	9.99E-02	1.04E+00	1.71E+01	6.29E-02	-2.49E+01				
PENRM	[MJ]	9.29E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01				
PENRT	[MJ]	3.43E+02	5.30E+00	4.97E+00	3.48E+00	9.99E-02	1.04E+00	1.71E+01	6.29E-02	-2.51E+01				
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
FW	[^{m3}]	-1.97E+00	-2.25E-03	-1.45E-02	-2.37E-02	-2.59E-05	-5.06E-04	-8.15E-02	4.66E-05	1.12E-01				
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be													
	The numbers are give	STELLI SCICILLING				.000000000011		io di 195, Wi	⊪6 1.12L-11	would be				

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
RWD	[kg]	1.36E-03	2.47E-06	9.09E-06	5.09E-06	5.49E-07	5.32E-07	2.46E-05	1.01E-08	-8.55E-05			
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
Caption		HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy											
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be			

BIOGENIC CARBON/CARBON PER M ²									
Parameters	Unit	At the factory gate							
Biogenic carbon content in the product	[kg C]	3.77							
Biogenic carbon content In the included packaging	[kg C]	0.47							
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$							





No. 13 Vesterby Firestop, Multipanels, 15 mm perforated, 30-40% opening

	ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
GWP-total	[kg CO ₂ eq.]	4.46E+00	3.35E-01	2.11E+00	6.79E-01	6.21E-03	6.70E-02	1.85E+01	2.64E-03	-1.76E+00			
GWP-fossil	[kg CO ₂ eq.]	2.17E+01	3.35E-01	3.79E-01	2.56E-01	6.20E-03	6.69E-02	1.66E+00	2.63E-03	-1.75E+00			
GWP-biogenic	[kg CO ₂ eq.]	-1.86E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.69E+01	0.00E+00	0.00E+00			
GWP-luluc	[kg CO ₂ eq.]	1.36E+00	1.56E-04	3.43E-04	4.23E-01	1.89E-05	3.21E-05	1.02E-03	1.55E-06	-3.77E-03			
ODP	[kg CFC 11 eq.]	8.68E-07	7.17E-09	4.10E-09	1.33E-08	1.39E-10	1.43E-09	3.55E-08	7.31E-11	-4.56E-08			
AP	[mol H+ eq.]	3.98E-01	1.35E-03	1.79E-03	2.86E-03	3.06E-05	3.05E-04	1.28E-02	1.90E-05	-1.43E-02			
EP-freshwater	[kg P eq.]	7.90E-03	2.34E-05	1.02E-04	4.55E-03	5.22E-06	4.70E-06	3.60E-04	2.10E-07	-6.72E-04			
EP-marine	[kg N eq.]	7.92E-02	5.14E-04	4.45E-04	3.26E-03	6.04E-06	1.21E-04	2.59E-03	7.30E-06	-2.33E-03			
EP-terrestrial	[mol N eq.]	1.52E+00	5.48E-03	3.65E-03	1.05E-02	6.94E-05	1.29E-03	2.95E-02	7.83E-05	-3.30E-02			
POCP	[kg NMVOC eq.]	1.45E-01	2.06E-03	1.26E-03	1.74E-03	1.69E-05	4.52E-04	8.80E-03	2.72E-05	-1.03E-02			
ADPm ¹	[kg Sb eq.]	1.11E-04	8.86E-07	4.54E-06	2.45E-06	1.36E-07	2.03E-07	7.73E-06	3.51E-09	-9.60E-06			
ADPf ¹	[MJ]	3.39E+02	4.80E+00	4.97E+00	2.59E+00	9.99E-02	9.41E-01	1.67E+01	6.29E-02	-2.41E+01			
WDP ¹	[m³ world eq. deprived]	1.85E+01	2.32E-02	1.81E-01	4.11E-01	1.15E-03	4.16E-03	1.91E-01	2.78E-03	-4.47E-01			
Caption	GWP-total = Global wa warming, land use and la EP-marine = Eutrophication creation; ADPm = Depl The numbers are give	nd conversion on (nutrient loa etion of abiotic	a; ODP = Ozor ading) – marir c resources – d: format, e.g. 1	ne depletion; he; EP- terrest minerals and 1.95E+02. Thi	AP = Acidifica trial = Eutroph metals; ADPf resources s number can	tion; EP-freshication (nutrier = Depletion o	water = Eutro nt loading) – to f abiotic fossil tten as: 1.95*	phication (nuti errestrial; POC resources; W	rient loading) - CP = Photoch DP = Depletion	- freshwater; emical ozone on of water			
Disclaimer	¹ Results of this environ	mental indicat				000000000011 certainties on		n or when the	re are limited i	results with			

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PM	[Incidence of disease]	3.79E-06	2.61E-08	2.17E-08	4.41E-08	1.91E-10	5.25E-09	7.35E-08	4.05E-10	-1.56E-07			
IRP ²	[kBq U235 eq .]	4.38E+00	6.06E-03	3.36E-02	1.47E-02	2.21E-03	1.30E-03	8.69E-02	3.99E-05	-2.35E-01			
ETP- fw 1	[CTUe]	3.04E+02	2.51E+00	1.52E+00	4.04E+01	2.18E-02	4.98E-01	4.83E+00	3.09E-02	-5.92E+00			
HTP-c ¹	[CTUh]	8.66E-08	1.42E-10	1.15E-09	5.51E-10	4.43E-12	3.51E-11	4.89E-09	1.07E-12	-6.70E-09			
HTP- nc 1	[CTUh]	5.25E-07	4.47E-09	6.59E-09	1.67E-08	1.98E-10	9.35E-10	2.00E-08	3.05E-11	-2.94E-08			
SQP ¹	-	3.38E+03	4.87E+00	1.80E+00	2.44E+01	1.36E-01	7.07E-01	5.52E+00	1.25E-01	-2.26E+02			
Continu	PM = Particulate matter;					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be			
Disclaimers	¹ Results of this environ	mental indicat	or should be u	used with cau	tion as the unindicators.	certainties on	these are high	n or when the	re are limited	results with			
	into account effects re	² This impact category mainly covers the potential impact of low-dose ionising radiation on human health in the nuclear fuel chain. It does not take into account effects resulting from possible nuclear accidents, occupational exposure or exposure due to the disposal of radioactive waste in underground facilities. Potential ionising radiation from the soil, from radon and from some building materials is also not measured by this indicator.											





	RESOURCE USE PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PEAR	[MJ]	2.90E+02	7.03E-02	7.86E-01	1.20E+01	1.02E-01	1.49E-02	1.48E+00	5.33E-04	-4.35E+01			
PERM	[MJ]	2.05E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00			
PERT	[MJ]	4.94E+02	7.03E-02	7.86E-01	1.20E+01	1.02E-01	1.49E-02	1.48E+00	5.33E-04	-4.54E+01			
PENRE	[MJ]	3.32E+02	4.80E+00	4.97E+00	3.04E+00	9.99E-02	9.41E-01	1.67E+01	6.29E-02	-2.39E+01			
PENRM	[MJ]	8.57E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01			
PENRT	[MJ]	3.41E+02	4.80E+00	4.97E+00	3.04E+00	9.99E-02	9.41E-01	1.67E+01	6.29E-02	-2.41E+01			
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
FW	[^{m3}]	-1.96E+00	-2.03E-03	-1.45E-02	-2.08E-02	-2.59E-05	-4.58E-04	-8.04E-02	4.66E-05	1.08E-01			
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be												
	The numbers are give	SIT IIT SOICHUIL				.00000000011		10 01 195, WI	IIIG 1.12L-11	WOULD DE			

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
RWD	[kg]	1.23E-03	2.24E-06	9.09E-06	4.53E-06	5.49E-07	4.83E-07	2.38E-05	1.01E-08	-7.97E-05			
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
Caption	HWD = Hazardous Was for Recycling; MFR =			ER = Materia		Recovery; EE							
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wh	nile 1.12E-11	would be			

BIOGENIC CARBON/CARBON PER M ²									
Parameters	Unit	At the factory gate							
Biogenic carbon content in the product	[kg C]	3.36							
Biogenic carbon content In the included packaging	[kg C]	0.47							
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$							





No. 14 Vesterby Firestop, Multipanels, 21 mm slats, 10-19% opening

	ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
GWP-total	[kg CO ₂ eq.]	3.41E+00	5.23E-01	2.11E+00	8.73E-01	6.21E-03	1.04E-01	2.24E+01	2.64E-03	-2.09E+00			
GWP-fossil	[kg CO ₂ eq.]	2.43E+01	5.22E-01	3.79E-01	3.29E-01	6.20E-03	1.04E-01	1.84E+00	2.63E-03	-2.08E+00			
GWP-biogenic	[kg CO ₂ eq.]	-2.23E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	2.06E+01	0.00E+00	0.00E+00			
GWP-luluc	[kg CO ₂ eq.]	1.37E+00	2.43E-04	3.43E-04	5.44E-01	1.89E-05	5.01E-05	1.52E-03	1.55E-06	-5.65E-03			
ODP	[kg CFC 11 eq.]	9.21E-07	1.12E-08	4.10E-09	1.70E-08	1.39E-10	2.23E-09	3.82E-08	7.31E-11	-5.38E-08			
AP	[mol H+ eq.]	4.22E-01	2.11E-03	1.79E-03	3.67E-03	3.06E-05	4.75E-04	1.39E-02	1.90E-05	-1.65E-02			
EP-freshwater	[kg P eq.]	8.62E-03	3.65E-05	1.02E-04	5.85E-03	5.22E-06	7.33E-06	4.02E-04	2.10E-07	-8.53E-04			
EP-marine	[kg N eq.]	8.63E-02	8.02E-04	4.45E-04	4.19E-03	6.04E-06	1.88E-04	2.98E-03	7.30E-06	-3.04E-03			
EP-terrestrial	[mol N eq.]	1.60E+00	8.55E-03	3.65E-03	1.35E-02	6.94E-05	2.02E-03	3.36E-02	7.83E-05	-4.14E-02			
POCP	[kg NMVOC eq.]	1.69E-01	3.21E-03	1.26E-03	2.24E-03	1.69E-05	7.05E-04	1.00E-02	2.72E-05	-1.27E-02			
ADPm ¹	[kg Sb eq.]	1.22E-04	1.38E-06	4.54E-06	3.15E-06	1.36E-07	3.17E-07	8.18E-06	3.51E-09	-1.10E-05			
ADPf ¹	[MJ]	3.94E+02	7.49E+00	4.97E+00	3.33E+00	9.99E-02	1.47E+00	1.91E+01	6.29E-02	-2.96E+01			
WDP ¹	[m³ world eq. deprived]	2.11E+01	3.63E-02	1.81E-01	5.28E-01	1.15E-03	6.48E-03	1.90E-01	2.78E-03	-5.96E-01			
Caption	GWP-total = Global war warming, land use and lar EP-marine = Eutrophication creation; ADPm = Depling The numbers are give	nd conversion on (nutrient loa etion of abiotic	a; ODP = Ozo ading) – marir c resources –	ne depletion; he; EP- terrest minerals and 1.95E+02. Thi	AP = Acidifica trial = Eutroph metals; ADPf resources s number can	tion; EP-freshication (nutrier = Depletion o	water = Eutro nt loading) – to f abiotic fossil tten as: 1.95*	phication (nuti errestrial; POC resources; W	rient loading) - CP = Photoche 'DP = Depletion	- freshwater; emical ozone on of water			
Disclaimer	¹ Results of this environ	mental indicat				certainties on		n or when ther	e are limited r	esults with			

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PM	[Incidence of disease]	4.15E-06	4.07E-08	2.17E-08	5.67E-08	1.91E-10	8.19E-09	8.77E-08	4.05E-10	-2.14E-07			
IRP ²	[kBq U235 eq .]	5.29E+00	9.46E-03	3.36E-02	1.89E-02	2.21E-03	2.03E-03	9.76E-02	3.99E-05	-3.22E-01			
ETP- fw 1	[CTUe]	3.17E+02	3.92E+00	1.52E+00	5.20E+01	2.18E-02	7.76E-01	6.28E+00	3.09E-02	-7.72E+00			
HTP-c ¹	[CTUh]	1.02E-07	2.22E-10	1.15E-09	7.09E-10	4.43E-12	5.47E-11	5.05E-09	1.07E-12	-7.61E-09			
HTP- nc 1	[CTUh]	5.76E-07	6.98E-09	6.59E-09	2.15E-08	1.98E-10	1.46E-09	2.46E-08	3.05E-11	-3.70E-08			
SQP ¹	-	3.84E+03	7.61E+00	1.80E+00	3.14E+01	1.36E-01	1.10E+00	7.05E+00	1.25E-01	-3.51E+02			
Continu	PM = Particulate matter;						water; HTP-c ty (dimension		icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be			
Disclaimers	¹ Results of this environ	mental indicat	or should be i	used with cau	tion as the unindicators.	certainties on	these are high	n or when the	re are limited	results with			
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE USE PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
PEAR	[MJ]	3.42E+02	1.10E-01	7.86E-01	1.54E+01	1.02E-01	2.32E-02	1.60E+00	5.33E-04	-6.81E+01				
PERM	[MJ]	2.46E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00				
PERT	[MJ]	5.89E+02	1.10E-01	7.86E-01	1.54E+01	1.02E-01	2.32E-02	1.60E+00	5.33E-04	-7.00E+01				
PENRE	[MJ]	3.86E+02	7.49E+00	4.97E+00	3.91E+00	9.99E-02	1.47E+00	1.91E+01	6.29E-02	-2.95E+01				
PENRM	[MJ]	9.74E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01				
PENRT	[MJ]	3.96E+02	7.49E+00	4.97E+00	3.91E+00	9.99E-02	1.47E+00	1.91E+01	6.29E-02	-2.96E+01				
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
FW	[^{m3}]	-2.27E+00	-3.17E-03	-1.45E-02	-2.67E-02	-2.59E-05	-7.14E-04	-8.64E-02	4.66E-05	1.29E-01				
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be													
	The humbers are give	Ji ii Goloriulio				.00000000011		10 01 100, WI	1.12L 11	caia bo				

WASTE CATEGORIES AND OUTPUT FLOW PER M ²										
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
HWD	[kg]	0.00E+00								
NHWD	[kg]	0.00E+00								
RWD	[kg]	1.10E-03	2.01E-06	9.09E-06	3.96E-06	5.49E-07	4.34E-07	2.31E-05	1.01E-08	-7.40E-05
CRU	[kg]	0.00E+00								
MFR	[kg]	0.00E+00								
MORE	[kg]	0.00E+00								
EEE	[MJ]	0.00E+00								
EET	[MJ]	0.00E+00								
Caption	HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy									
	The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.									

BIOGENIC CARBON/CARBON PER M ²							
Parameters	Unit	At the factory gate					
Biogenic carbon content in the product	[kg C]	5.60					
Biogenic carbon content In the included packaging	[kg C]	[kg C] 0.47					
Note	1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$						





No. 15 Vesterby Firestop, Multipanels, 21 mm slats, 20-29% opening

		I	ENVIRON	MENTAL	IMPACTS	PER M ²				
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	3.95E+00	4.75E-01	2.11E+00	7.76E-01	6.21E-03	9.48E-02	2.02E+01	2.64E-03	-2.00E+00
GWP-fossil	[kg CO ₂ eq.]	2.28E+01	4.74E-01	3.79E-01	2.93E-01	6.20E-03	9.47E-02	1.79E+00	2.63E-03	-2.00E+00
GWP-biogenic	[kg CO ₂ eq.]	-2.02E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.85E+01	0.00E+00	0.00E+00
GWP-luluc	[kg CO ₂ eq.]	1.36E+00	2.21E-04	3.43E-04	4.83E-01	1.89E-05	4.55E-05	1.39E-03	1.55E-06	-5.17E-03
ODP	[kg CFC 11 eq.]	8.89E-07	1.02E-08	4.10E-09	1.51E-08	1.39E-10	2.03E-09	3.75E-08	7.31E-11	-5.17E-08
AP	[mol H+ eq.]	4.08E-01	1.92E-03	1.79E-03	3.26E-03	3.06E-05	4.31E-04	1.36E-02	1.90E-05	-1.59E-02
EP-freshwater	[kg P eq.]	8.17E-03	3.31E-05	1.02E-04	5.20E-03	5.22E-06	6.66E-06	3.91E-04	2.10E-07	-8.07E-04
EP-marine	[kg N eq.]	8.22E-02	7.28E-04	4.45E-04	3.72E-03	6.04E-06	1.71E-04	2.88E-03	7.30E-06	-2.86E-03
EP-terrestrial	[mol N eq.]	1.56E+00	7.76E-03	3.65E-03	1.20E-02	6.94E-05	1.83E-03	3.26E-02	7.83E-05	-3.93E-02
POCP	[kg NMVOC eq.]	1.56E-01	2.91E-03	1.26E-03	1.99E-03	1.69E-05	6.40E-04	9.72E-03	2.72E-05	-1.21E-02
ADPm ¹	[kg Sb eq.]	1.15E-04	1.25E-06	4.54E-06	2.80E-06	1.36E-07	2.88E-07	8.06E-06	3.51E-09	-1.06E-05
ADPf ¹	[MJ]	3.62E+02	6.80E+00	4.97E+00	2.96E+00	9.99E-02	1.33E+00	1.85E+01	6.29E-02	-2.82E+01
WDP ¹	[m³ world eq. deprived]	1.95E+01	3.29E-02	1.81E-01	4.70E-01	1.15E-03	5.88E-03	1.90E-01	2.78E-03	-5.58E-01
Caption	GWP-total = Global wa warming, land use and la EP-marine = Eutrophicatio creation; ADPm = Depl The numbers are give	nd conversion on (nutrient loa etion of abiotic	a; ODP = Ozor ading) – marir c resources –	ne depletion; ine; EP- terrest minerals and 1.95E+02. Thi	AP = Acidifica rial = Eutroph metals; ADPf resources s number can	tion; EP-fresh ication (nutried = Depletion of also be rewrited	water = Eutro nt loading) – to f abiotic fossil tten as: 1.95*	phication (nut errestrial; PO0 resources; W	rient loading) - CP = Photoch DP = Depletion	- freshwater; emical ozone on of water
Disclaimer	¹ Results of this environ	the same as 1.12*10 ·11 or 0.000000000112. Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.								

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	С3	C4	D			
PM	[Incidence of disease]	3.94E-06	3.69E-08	2.17E-08	5.04E-08	1.91E-10	7.43E-09	8.41E-08	4.05E-10	-1.99E-07			
IRP ²	[kBq U235 eq .]	4.79E+00	8.58E-03	3.36E-02	1.68E-02	2.21E-03	1.84E-03	9.49E-02	3.99E-05	-3.00E-01			
ETP- fw 1	[CTUe]	3.10E+02	3.56E+00	1.52E+00	4.62E+01	2.18E-02	7.05E-01	5.91E+00	3.09E-02	-7.27E+00			
HTP-c ¹	[CTUh]	9.32E-08	2.01E-10	1.15E-09	6.30E-10	4.43E-12	4.97E-11	5.01E-09	1.07E-12	-7.38E-09			
HTP- nc 1	[CTUh]	5.47E-07	6.34E-09	6.59E-09	1.91E-08	1.98E-10	1.32E-09	2.34E-08	3.05E-11	-3.51E-08			
SQP ¹	-	3.58E+03	6.91E+00	1.80E+00	2.79E+01	1.36E-01	1.00E+00	6.65E+00	1.25E-01	-3.19E+02			
Continu	PM = Particulate matter;						water; HTP-c ty (dimension		icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be			
Disclaimers	¹ Results of this environ	mental indicat	or should be u	used with cau	tion as the unindicators.	certainties on	these are high	n or when the	re are limited	results with			
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE USE PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
PEAR	[MJ]	3.13E+02	9.96E-02	7.86E-01	1.37E+01	1.02E-01	2.11E-02	1.57E+00	5.33E-04	-6.19E+01				
PERM	[MJ]	2.23E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00				
PERT	[MJ]	5.36E+02	9.96E-02	7.86E-01	1.37E+01	1.02E-01	2.11E-02	1.57E+00	5.33E-04	-6.38E+01				
PENRE	[MJ]	3.56E+02	6.80E+00	4.97E+00	3.48E+00	9.99E-02	1.33E+00	1.85E+01	6.29E-02	-2.80E+01				
PENRM	[MJ]	8.74E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01				
PENRT	[MJ]	3.64E+02	6.80E+00	4.97E+00	3.48E+00	9.99E-02	1.33E+00	1.85E+01	6.29E-02	-2.82E+01				
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
FW	[^{m3}]	-2.09E+00	-2.88E-03	-1.45E-02	-2.37E-02	-2.59E-05	-6.48E-04	-8.49E-02	4.66E-05	1.24E-01				
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy; PENRM = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy; resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be													
	The numbers are give	en in Scientific				.00000000001		10 01 195, WI	IIIE 1.12E-11	would be				

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RWD	[kg]	1.48E-03	2.47E-06	9.09E-06	5.09E-06	5.49E-07	5.32E-07	2.46E-05	1.01E-08	-8.55E-05				
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
Caption		HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy												
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be				

BIOGENIC CARBON/CARBON PER M ²										
Parameters	Unit	At the factory gate								
Biogenic carbon content in the product	[kg C]	5.03								
Biogenic carbon content In the included packaging	[kg C]	0.47								
Note 1 kg of biogenic carbon is equivalent to 44/12 kg of CO ₂										





No. 16 Vesterby Firestop, Multipanels, 21 mm slats, 30-40% opening

	ENVIRONMENTAL IMPACTS PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
GWP-total	[kg CO ₂ eq.]	4.50E+00	4.26E-01	2.11E+00	6.79E-01	6.21E-03	8.52E-02	1.81E+01	2.64E-03	-1.92E+00				
GWP-fossil	[kg CO ₂ eq.]	2.12E+01	4.26E-01	3.79E-01	2.56E-01	6.20E-03	8.51E-02	1.75E+00	2.63E-03	-1.91E+00				
GWP-biogenic	[kg CO ₂ eq.]	-1.82E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	1.64E+01	0.00E+00	0.00E+00				
GWP-luluc	[kg CO ₂ eq.]	1.36E+00	1.98E-04	3.43E-04	4.23E-01	1.89E-05	4.09E-05	1.26E-03	1.55E-06	-4.70E-03				
ODP	[kg CFC 11 eq.]	8.58E-07	9.13E-09	4.10E-09	1.33E-08	1.39E-10	1.82E-09	3.68E-08	7.31E-11	-4.96E-08				
AP	[mol H+ eq.]	3.95E-01	1.72E-03	1.79E-03	2.86E-03	3.06E-05	3.87E-04	1.33E-02	1.90E-05	-1.54E-02				
EP-freshwater	[kg P eq.]	7.72E-03	2.97E-05	1.02E-04	4.55E-03	5.22E-06	5.98E-06	3.80E-04	2.10E-07	-7.62E-04				
EP-marine	[kg N eq.]	7.82E-02	6.54E-04	4.45E-04	3.26E-03	6.04E-06	1.54E-04	2.78E-03	7.30E-06	-2.68E-03				
EP-terrestrial	[mol N eq.]	1.51E+00	6.97E-03	3.65E-03	1.05E-02	6.94E-05	1.65E-03	3.15E-02	7.83E-05	-3.72E-02				
POCP	[kg NMVOC eq.]	1.42E-01	2.62E-03	1.26E-03	1.74E-03	1.69E-05	5.75E-04	9.40E-03	2.72E-05	-1.15E-02				
ADPm ¹	[kg Sb eq.]	1.09E-04	1.13E-06	4.54E-06	2.45E-06	1.36E-07	2.58E-07	7.95E-06	3.51E-09	-1.03E-05				
ADPf ¹	[MJ]	3.31E+02	6.11E+00	4.97E+00	2.59E+00	9.99E-02	1.20E+00	1.79E+01	6.29E-02	-2.68E+01				
WDP ¹	[m³ world eq. deprived]	1.80E+01	2.96E-02	1.81E-01	4.11E-01	1.15E-03	5.29E-03	1.90E-01	2.78E-03	-5.20E-01				
Caption	GWP-total = Global wa warming, land use and la EP-marine = Eutrophicatic creation; ADPm = Depl	nd conversion on (nutrient loa etion of abioti	n; ODP = Ozor ading) – marir c resources – c' format, e.g.	ne depletion; ane; EP- terrest minerals and	AP = Acidifica rial = Eutroph metals; ADPf resources s number car	tion; EP-fresh ication (nutrie = Depletion o	water = Eutro nt loading) – t of abiotic fossil tten as: 1.95*	phication (nut errestrial; PO0 resources; W	rient loading) CP = Photoch /DP = Depletion	- freshwater; emical ozone on of water				
Disclaimer	¹ Results of this environ	mental indicat						n or when the	re are limited	results with				

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PM	[Incidence of disease]	3.74E-06	3.32E-08	2.17E-08	4.41E-08	1.91E-10	6.68E-09	8.04E-08	4.05E-10	-1.85E-07			
IRP ²	[kBq U235 eq .]	4.29E+00	7.71E-03	3.36E-02	1.47E-02	2.21E-03	1.66E-03	9.21E-02	3.99E-05	-2.78E-01			
ETP- fw 1	[CTUe]	3.02E+02	3.20E+00	1.52E+00	4.04E+01	2.18E-02	6.33E-01	5.54E+00	3.09E-02	-6.81E+00			
HTP-c ¹	[CTUh]	8.42E-08	1.81E-10	1.15E-09	5.51E-10	4.43E-12	4.47E-11	4.97E-09	1.07E-12	-7.15E-09			
HTP- nc 1	[CTUh]	5.18E-07	5.69E-09	6.59E-09	1.67E-08	1.98E-10	1.19E-09	2.22E-08	3.05E-11	-3.31E-08			
SQP ¹	-	3.32E+03	6.20E+00	1.80E+00	2.44E+01	1.36E-01	8.99E-01	6.26E+00	1.25E-01	-2.88E+02			
Continu	PM = Particulate matter;		radiation - hu Human toxic						icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be			
Disclaimers	¹ Results of this environ	mental indicat	or should be u	used with cau	tion as the unindicators.	certainties on	these are high	n or when the	re are limited	results with			
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE USE PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
PEAR	[MJ]	2.83E+02	8.95E-02	7.86E-01	1.20E+01	1.02E-01	1.89E-02	1.54E+00	5.33E-04	-5.56E+01				
PERM	[MJ]	2.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00				
PERT	[MJ]	4.82E+02	8.95E-02	7.86E-01	1.20E+01	1.02E-01	1.89E-02	1.54E+00	5.33E-04	-5.76E+01				
PENRE	[MJ]	3.25E+02	6.11E+00	4.97E+00	3.04E+00	9.99E-02	1.20E+00	1.79E+01	6.29E-02	-2.66E+01				
PENRM	[MJ]	7.75E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01				
PENRT	[MJ]	3.33E+02	6.11E+00	4.97E+00	3.04E+00	9.99E-02	1.20E+00	1.79E+01	6.29E-02	-2.68E+01				
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
FW	[^{m3}]	-1.90E+00	-2.59E-03	-1.45E-02	-2.08E-02	-2.59E-05	-5.83E-04	-8.33E-02	4.66E-05	1.18E-01				
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy; PENRM = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be													
	The numbers are give	Ji ii Goloriulio				.00000000011		10 01 100, WI	1.12L 11	caia bo				

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RWD	[kg]	1.48E-03	2.24E-06	9.09E-06	4.53E-06	5.49E-07	4.83E-07	2.38E-05	1.01E-08	-7.97E-05				
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
Caption		HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy												
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be				

BIOGENIC CARBON/CARBON PER M ²									
Parameters	Unit	At the factory gate							
Biogenic carbon content in the product	[kg C]	4.46							
Biogenic carbon content In the included packaging	[kg C]	0.47							
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\rm 2}$							





No. 17 Vesterby Firestop, Multipanels, 21 mm perforated, 10-19% opening

	ENVIRONMENTAL IMPACTS PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
GWP-total	[kg CO ₂ eq.]	2.75E+00	5.23E-01	2.11E+00	8.73E-01	6.21E-03	1.04E-01	2.44E+01	2.64E-03	-2.09E+00				
GWP-fossil	[kg CO ₂ eq.]	2.57E+01	5.22E-01	3.79E-01	3.29E-01	6.20E-03	1.04E-01	1.84E+00	2.63E-03	-2.08E+00				
GWP-biogenic	[kg CO ₂ eq.]	-2.44E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	2.27E+01	0.00E+00	0.00E+00				
GWP-luluc	[kg CO ₂ eq.]	1.37E+00	2.43E-04	3.43E-04	5.44E-01	1.89E-05	5.01E-05	1.52E-03	1.55E-06	-5.65E-03				
ODP	[kg CFC 11 eq.]	9.50E-07	1.12E-08	4.10E-09	1.70E-08	1.39E-10	2.23E-09	3.82E-08	7.31E-11	-5.38E-08				
AP	[mol H+ eq.]	4.35E-01	2.11E-03	1.79E-03	3.67E-03	3.06E-05	4.75E-04	1.39E-02	1.90E-05	-1.65E-02				
EP-freshwater	[kg P eq.]	9.03E-03	3.65E-05	1.02E-04	5.85E-03	5.22E-06	7.33E-06	4.02E-04	2.10E-07	-8.53E-04				
EP-marine	[kg N eq.]	9.02E-02	8.02E-04	4.45E-04	4.19E-03	6.04E-06	1.88E-04	2.98E-03	7.30E-06	-3.04E-03				
EP-terrestrial	[mol N eq.]	1.65E+00	8.55E-03	3.65E-03	1.35E-02	6.94E-05	2.02E-03	3.36E-02	7.83E-05	-4.14E-02				
POCP	[kg NMVOC eq.]	1.83E-01	3.21E-03	1.26E-03	2.24E-03	1.69E-05	7.05E-04	1.00E-02	2.72E-05	-1.27E-02				
ADPm ¹	[kg Sb eq.]	1.28E-04	1.38E-06	4.54E-06	3.15E-06	1.36E-07	3.17E-07	8.18E-06	3.51E-09	-1.10E-05				
ADPf ¹	[MJ]	4.23E+02	7.49E+00	4.97E+00	3.33E+00	9.99E-02	1.47E+00	1.91E+01	6.29E-02	-2.96E+01				
WDP ¹	[m³ world eq. deprived]	2.26E+01	3.63E-02	1.81E-01	5.28E-01	1.15E-03	6.48E-03	1.90E-01	2.78E-03	-5.96E-01				
Caption	GWP-total = Global wa warming, land use and la EP-marine = Eutrophicatic creation; ADPm = Depl	nd conversion on (nutrient loa etion of abiotic	a; ODP = Ozo ading) – marir c resources –	ne depletion; he; EP- terrest minerals and 1.95E+02. Thi	AP = Acidifica trial = Eutroph metals; ADPf resources s number can	tion; EP-fresh ication (nutrie = Depletion o	water = Eutro nt loading) – t of abiotic fossil tten as: 1.95*	phication (nut errestrial; PO resources; W	rient loading) - CP = Photoch DP = Depletion	- freshwater; emical ozone on of water				
Disclaimer	¹ Results of this environ	mental indicat						n or when the	re are limited ı	esults with				

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PM	[Incidence of disease]	4.35E-06	4.07E-08	2.17E-08	5.67E-08	1.91E-10	8.19E-09	8.77E-08	4.05E-10	-2.14E-07			
IRP ²	[kBq U235 eq .]	5.78E+00	9.46E-03	3.36E-02	1.89E-02	2.21E-03	2.03E-03	9.76E-02	3.99E-05	-3.22E-01			
ETP- fw 1	[CTUe]	3.24E+02	3.92E+00	1.52E+00	5.20E+01	2.18E-02	7.76E-01	6.28E+00	3.09E-02	-7.72E+00			
HTP-c ¹	[CTUh]	1.11E-07	2.22E-10	1.15E-09	7.09E-10	4.43E-12	5.47E-11	5.05E-09	1.07E-12	-7.61E-09			
HTP- nc 1	[CTUh]	6.03E-07	6.98E-09	6.59E-09	2.15E-08	1.98E-10	1.46E-09	2.46E-08	3.05E-11	-3.70E-08			
SQP ¹	-	4.10E+03	7.61E+00	1.80E+00	3.14E+01	1.36E-01	1.10E+00	7.05E+00	1.25E-01	-3.51E+02			
Continu	PM = Particulate matter;					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri .00000000011		10 ² or 195, wh	hile 1.12E-11	would be			
Disclaimers	¹ Results of this environ	mental indicat	or should be u	used with cau	tion as the und indicators.	certainties on	these are high	n or when the	re are limited	results with			
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, d	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE USE PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PEAR	[MJ]	3.72E+02	1.10E-01	7.86E-01	1.54E+01	1.02E-01	2.32E-02	1.60E+00	5.33E-04	-6.81E+01			
PERM	[MJ]	2.70E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00			
PERT	[MJ]	6.42E+02	1.10E-01	7.86E-01	1.54E+01	1.02E-01	2.32E-02	1.60E+00	5.33E-04	-7.00E+01			
PENRE	[MJ]	4.15E+02	7.49E+00	4.97E+00	3.91E+00	9.99E-02	1.47E+00	1.91E+01	6.29E-02	-2.95E+01			
PENRM	[MJ]	1.00E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01			
PENRT	[MJ]	4.25E+02	7.49E+00	4.97E+00	3.91E+00	9.99E-02	1.47E+00	1.91E+01	6.29E-02	-2.96E+01			
SM	[kg]	0.00E+00	0.00E+00	0.00E+00									
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00									
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00									
FW	[^{m3}]	-2.45E+00	-3.17E-03	-1.45E-02	-2.67E-02	-2.59E-05	-7.14E-04	-8.64E-02	4.66E-05	1.29E-01			
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be the same as 1.12*10 11 or 0.000000000112.												

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
RWD	[kg]	1.48E-03	2.01E-06	9.09E-06	3.96E-06	5.49E-07	4.34E-07	2.31E-05	1.01E-08	-7.40E-05			
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
Caption	HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy												
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wh	nile 1.12E-11	would be			

BIOGENIC CARBON/CARBON PER M ²									
Parameters	Unit	At the factory gate							
Biogenic carbon content in the product	[kg C]	5.60							
Biogenic carbon content In the included packaging	[kg C]	0.47							
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$							





No. 18 Vesterby Firestop, Multipanels, 21 mm perforated, 20-29% opening

ENVIRONMENTAL IMPACTS PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
GWP-total	[kg CO ₂ eq.]	2.63E+00	4.75E-01	2.11E+00	7.76E-01	6.21E-03	9.48E-02	2.44E+01	2.64E-03	-2.00E+00			
GWP-fossil	[kg CO ₂ eq.]	2.56E+01	4.74E-01	3.79E-01	2.93E-01	6.20E-03	9.47E-02	1.79E+00	2.63E-03	-2.00E+00			
GWP-biogenic	[kg CO ₂ eq.]	-2.44E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	2.27E+01	0.00E+00	0.00E+00			
GWP-luluc	[kg CO ₂ eq.]	1.37E+00	2.21E-04	3.43E-04	4.83E-01	1.89E-05	4.55E-05	1.39E-03	1.55E-06	-5.17E-03			
ODP	[kg CFC 11 eq.]	9.47E-07	1.02E-08	4.10E-09	1.51E-08	1.39E-10	2.03E-09	3.75E-08	7.31E-11	-5.17E-08			
AP	[mol H+ eq.]	4.34E-01	1.92E-03	1.79E-03	3.26E-03	3.06E-05	4.31E-04	1.36E-02	1.90E-05	-1.59E-02			
EP-freshwater	[kg P eq.]	9.00E-03	3.31E-05	1.02E-04	5.20E-03	5.22E-06	6.66E-06	3.91E-04	2.10E-07	-8.07E-04			
EP-marine	[kg N eq.]	9.01E-02	7.28E-04	4.45E-04	3.72E-03	6.04E-06	1.71E-04	2.88E-03	7.30E-06	-2.86E-03			
EP-terrestrial	[mol N eq.]	1.64E+00	7.76E-03	3.65E-03	1.20E-02	6.94E-05	1.83E-03	3.26E-02	7.83E-05	-3.93E-02			
POCP	[kg NMVOC eq.]	1.82E-01	2.91E-03	1.26E-03	1.99E-03	1.69E-05	6.40E-04	9.72E-03	2.72E-05	-1.21E-02			
ADPm ¹	[kg Sb eq.]	1.27E-04	1.25E-06	4.54E-06	2.80E-06	1.36E-07	2.88E-07	8.06E-06	3.51E-09	-1.06E-05			
ADPf ¹	[MJ]	4.21E+02	6.80E+00	4.97E+00	2.96E+00	9.99E-02	1.33E+00	1.85E+01	6.29E-02	-2.82E+01			
WDP ¹	[m³ world eq. deprived]	2.25E+01	3.29E-02	1.81E-01	4.70E-01	1.15E-03	5.88E-03	1.90E-01	2.78E-03	-5.58E-01			
Caption	GWP-total = Global wa warming, land use and la EP-marine = Eutrophicatio creation; ADPm = Depl The numbers are give	nd conversion on (nutrient loa etion of abiotic	a; ODP = Ozor ading) – marir c resources –	ne depletion; ane; EP- terrest minerals and 1.95E+02. Thi	AP = Acidifica rial = Eutroph metals; ADPf resources s number can	tion; EP-fresh ication (nutrier = Depletion o	water = Eutro nt loading) – to if abiotic fossil tten as: 1.95*	phication (nut errestrial; PO0 resources; W	rient loading) - CP = Photoch DP = Depletion	- freshwater; emical ozone on of water			
Disclaimer	¹ Results of this environ	mental indicat						n or when the	re are limited ı	esults with			

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PM	[Incidence of disease]	4.34E-06	3.69E-08	2.17E-08	5.04E-08	1.91E-10	7.43E-09	8.41E-08	4.05E-10	-1.99E-07			
IRP ²	[kBq U235 eq .]	5.77E+00	8.58E-03	3.36E-02	1.68E-02	2.21E-03	1.84E-03	9.49E-02	3.99E-05	-3.00E-01			
ETP- fw 1	[CTUe] 3.24E+02 3.56E+00 1.52E+00 4.62E+01 2.18E-02 7.05E-01 5.91E+00 3.09E-02 -7.2												
HTP-c ¹	[CTUh]	[CTUh] 1.11E-07 2.01E-10 1.15E-09 6.30E-10 4.43E-12 4.97E-11 5.01E-09 1.07E-12 -7.38E-09											
HTP- nc 1	[CTUh]	6.02E-07	6.34E-09	6.59E-09	1.91E-08	1.98E-10	1.32E-09	2.34E-08	3.05E-11	-3.51E-08			
SQP ¹	-	4.10E+03	6.91E+00	1.80E+00	2.79E+01	1.36E-01	1.00E+00	6.65E+00	1.25E-01	-3.19E+02			
Continu	PM = Particulate matter;					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be			
Disclaimers	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.												
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE USE PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PEAR	[MJ]	3.72E+02	9.96E-02	7.86E-01	1.37E+01	1.02E-01	2.11E-02	1.57E+00	5.33E-04	-6.19E+01			
PERM	[MJ]	2.70E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00			
PERT	[MJ]	6.41E+02	9.96E-02	7.86E-01	1.37E+01	1.02E-01	2.11E-02	1.57E+00	5.33E-04	-6.38E+01			
PENRE	[MJ]	4.13E+02	6.80E+00	4.97E+00	3.48E+00	9.99E-02	1.33E+00	1.85E+01	6.29E-02	-2.80E+01			
PENRM	[MJ]	9.29E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01			
PENRT	[MJ]	4.22E+02	6.80E+00	4.97E+00	3.48E+00	9.99E-02	1.33E+00	1.85E+01	6.29E-02	-2.82E+01			
SM	[kg]	0.00E+00	0.00E+00	0.00E+00									
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00									
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00									
FW	[^{m3}]	-2.44E+00	-2.88E-03	-1.45E-02	-2.37E-02	-2.59E-05	-6.48E-04	-8.49E-02	4.66E-05	1.24E-01			
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 or 1.95, while 1.12E-11 would be the same as 1.12*10-11 or 0.00000000112.												

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RWD	[kg]	1.48E-03	2.24E-06	9.09E-06	4.53E-06	5.49E-07	4.83E-07	2.38E-05	1.01E-08	-7.97E-05				
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
Caption	HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy													
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be				

BIOGENIC CARBON/CARBON PER M ²										
Parameters	Unit	At the factory gate								
Biogenic carbon content in the product	[kg C]	5.03								
Biogenic carbon content In the included packaging	[kg C]	0.47								
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$								





No. 19 Vesterby Firestop, Multipanels, 21 mm perforated, 30-40% opening

ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
GWP-total	[kg CO ₂ eq.]	2.51E+00	4.26E-01	2.11E+00	6.79E-01	6.21E-03	8.52E-02	2.43E+01	2.64E-03	-1.92E+00		
GWP-fossil	[kg CO ₂ eq.]	2.55E+01	4.26E-01	3.79E-01	2.56E-01	6.20E-03	8.51E-02	1.75E+00	2.63E-03	-1.91E+00		
GWP-biogenic	[kg CO ₂ eq.]	-2.44E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	2.27E+01	0.00E+00	0.00E+00		
GWP-luluc	[kg CO ₂ eq.]	1.37E+00	1.98E-04	3.43E-04	4.23E-01	1.89E-05	4.09E-05	1.26E-03	1.55E-06	-4.70E-03		
ODP	[kg CFC 11 eq.]	9.45E-07	9.13E-09	4.10E-09	1.33E-08	1.39E-10	1.82E-09	3.68E-08	7.31E-11	-4.96E-08		
AP	[mol H+ eq.]	4.33E-01	1.72E-03	1.79E-03	2.86E-03	3.06E-05	3.87E-04	1.33E-02	1.90E-05	-1.54E-02		
EP-freshwater	[kg P eq.]	8.96E-03	2.97E-05	1.02E-04	4.55E-03	5.22E-06	5.98E-06	3.80E-04	2.10E-07	-7.62E-04		
EP-marine	[kg N eq.]	9.00E-02	6.54E-04	4.45E-04	3.26E-03	6.04E-06	1.54E-04	2.78E-03	7.30E-06	-2.68E-03		
EP-terrestrial	[mol N eq.]	1.64E+00	6.97E-03	3.65E-03	1.05E-02	6.94E-05	1.65E-03	3.15E-02	7.83E-05	-3.72E-02		
POCP	[kg NMVOC eq.]	1.82E-01	2.62E-03	1.26E-03	1.74E-03	1.69E-05	5.75E-04	9.40E-03	2.72E-05	-1.15E-02		
ADPm ¹	[kg Sb eq.]	1.27E-04	1.13E-06	4.54E-06	2.45E-06	1.36E-07	2.58E-07	7.95E-06	3.51E-09	-1.03E-05		
ADPf ¹	[MJ]	4.18E+02	6.11E+00	4.97E+00	2.59E+00	9.99E-02	1.20E+00	1.79E+01	6.29E-02	-2.68E+01		
WDP ¹	[m³ world eq. deprived]	2.25E+01	2.96E-02	1.81E-01	4.11E-01	1.15E-03	5.29E-03	1.90E-01	2.78E-03	-5.20E-01		
Caption	GWP-total = Global wa warming, land use and la EP-marine = Eutrophicatic creation; ADPm = Depl	nd conversion on (nutrient loa etion of abiotic	n; ODP = Ozo ading) – marir c resources –	ne depletion; ne; EP- terrest minerals and	AP = Acidifica rial = Eutroph metals; ADPf resources	tion; EP-fresh ication (nutrie = Depletion o	water = Eutro nt loading) – to f abiotic fossil	phication (nut errestrial; PO resources; W	rient loading) - CP = Photoch DP = Depletion	- freshwater; emical ozone on of water		
Disclaimer	¹ Results of this environ		th	e same as 1.	12*10 ⁻¹¹ or 0.	.0000000011	12.	,				

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PM	[Incidence of disease]	4.34E-06	3.32E-08	2.17E-08	4.41E-08	1.91E-10	6.68E-09	8.04E-08	4.05E-10	-1.85E-07			
IRP ²	[kBq U235 eq .]	5.76E+00	7.71E-03	3.36E-02	1.47E-02	2.21E-03	1.66E-03	9.21E-02	3.99E-05	-2.78E-01			
ETP- fw ¹	[CTUe]	3.23E+02	3.20E+00	1.52E+00	4.04E+01	2.18E-02	6.33E-01	5.54E+00	3.09E-02	-6.81E+00			
HTP-c 1	[CTUh]	[CTUh] 1.11E-07 1.81E-10 1.15E-09 5.51E-10 4.43E-12 4.47E-11 4.97E-09 1.07E-12 -7.15E-09											
HTP- nc ¹	[CTUh]	6.00E-07	5.69E-09	6.59E-09	1.67E-08	1.98E-10	1.19E-09	2.22E-08	3.05E-11	-3.31E-08			
SQP 1	-	4.10E+03	6.20E+00	1.80E+00	2.44E+01	1.36E-01	8.99E-01	6.26E+00	1.25E-01	-2.88E+02			
Ozation	PM = Particulate matter; I		radiation - hu Human toxic						icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be			
Disclaimers	¹ Results of this environ	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.											
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE USE PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PEAR	[MJ]	3.71E+02	8.95E-02	7.86E-01	1.20E+01	1.02E-01	1.89E-02	1.54E+00	5.33E-04	-5.56E+01			
PERM	[MJ]	2.70E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00			
PERT	[MJ]	6.41E+02	8.95E-02	7.86E-01	1.20E+01	1.02E-01	1.89E-02	1.54E+00	5.33E-04	-5.76E+01			
PENRE	[MJ]	4.12E+02	6.11E+00	4.97E+00	3.04E+00	9.99E-02	1.20E+00	1.79E+01	6.29E-02	-2.66E+01			
PENRM	[MJ]	8.57E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01			
PENRT	[MJ]	4.20E+02	6.11E+00	4.97E+00	3.04E+00	9.99E-02	1.20E+00	1.79E+01	6.29E-02	-2.68E+01			
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
FW	[^{m3}]	-2.43E+00	-2.59E-03	-1.45E-02	-2.08E-02	-2.59E-05	-5.83E-04	-8.33E-02	4.66E-05	1.18E-01			
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be												
	i ne numbers are give	en in 'scientific				also be rewri .000000000011		10 for 195, wi	niie 1.12E-11	would be			

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RWD	[kg]	1.48E-03	2.01E-06	9.09E-06	3.96E-06	5.49E-07	4.34E-07	2.31E-05	1.01E-08	-7.40E-05				
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
Caption	HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy													
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wh	nile 1.12E-11	would be				

	BIOGENIC CARBON/CARBON PER M ²									
Parameters	Unit	At the factory gate								
Biogenic carbon content in the product	[kg C]	g C] 4.46								
Biogenic carbon content In the included packaging	[kg C]	0.47								
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\rm 2}$								





No. 20 Vesterby Firestop, Multipanels, 30 mm slats, 10-19% opening

ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
GWP-total	[kg CO ₂ eq.]	7.83E-01	6.99E-01	2.11E+00	8.73E-01	6.21E-03	1.40E-01	3.03E+01	2.64E-03	-2.40E+00		
GWP-fossil	[kg CO ₂ eq.]	2.94E+01	6.99E-01	3.79E-01	3.29E-01	6.20E-03	1.39E-01	2.01E+00	2.63E-03	-2.40E+00		
GWP-biogenic	[kg CO ₂ eq.]	-3.01E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	2.84E+01	0.00E+00	0.00E+00		
GWP-luluc	[kg CO ₂ eq.]	1.38E+00	3.25E-04	3.43E-04	5.44E-01	1.89E-05	6.70E-05	2.00E-03	1.55E-06	-7.45E-03		
ODP	[kg CFC 11 eq.]	1.02E-06	1.50E-08	4.10E-09	1.70E-08	1.39E-10	2.98E-09	4.06E-08	7.31E-11	-6.16E-08		
AP	[mol H+ eq.]	4.69E-01	2.83E-03	1.79E-03	3.67E-03	3.06E-05	6.35E-04	1.49E-02	1.90E-05	-1.86E-02		
EP-freshwater	[kg P eq.]	1.01E-02	4.88E-05	1.02E-04	5.85E-03	5.22E-06	9.80E-06	4.42E-04	2.10E-07	-1.03E-03		
EP-marine	[kg N eq.]	1.01E-01	1.07E-03	4.45E-04	4.19E-03	6.04E-06	2.52E-04	3.35E-03	7.30E-06	-3.72E-03		
EP-terrestrial	[mol N eq.]	1.76E+00	1.14E-02	3.65E-03	1.35E-02	6.94E-05	2.70E-03	3.74E-02	7.83E-05	-4.95E-02		
POCP	[kg NMVOC eq.]	2.19E-01	4.29E-03	1.26E-03	2.24E-03	1.69E-05	9.42E-04	1.12E-02	2.72E-05	-1.51E-02		
ADPm ¹	[kg Sb eq.]	1.43E-04	1.85E-06	4.54E-06	3.15E-06	1.36E-07	4.23E-07	8.60E-06	3.51E-09	-1.23E-05		
ADPf ¹	[MJ]	5.01E+02	1.00E+01	4.97E+00	3.33E+00	9.99E-02	1.96E+00	2.14E+01	6.29E-02	-3.49E+01		
WDP ¹	[m³ world eq. deprived]	2.65E+01	4.85E-02	1.81E-01	5.28E-01	1.15E-03	8.66E-03	1.89E-01	2.78E-03	-7.39E-01		
Caption	GWP-total = Global warming, total; GWP-fossil = Global warming, fossil fuels; GWP- biogenic = Global warming, biogenic; GWP- luluc = Global warming, land use and land conversion; ODP = Ozone depletion; AP = Acidification; EP-freshwater = Eutrophication (nutrient loading) – freshwater; EP-marine = Eutrophication (nutrient loading) – marine; EP- terrestrial = Eutrophication (nutrient loading) – terrestrial; POCP = Photochemical ozone creation; ADPm = Depletion of abiotic resources – minerals and metals; ADPf = Depletion of abiotic fossil resources; WDP = Depletion of water resources The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.											
Disclaimer	¹ Results of this environ	mental indicat						n or when the	re are limited i	esults with		

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²											
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
PM	[Incidence of disease]	4.89E-06	5.44E-08	2.17E-08	5.67E-08	1.91E-10	1.09E-08	1.01E-07	4.05E-10	-2.70E-07		
IRP ²	[kBq U235 eq .]	7.15E+00	1.26E-02	3.36E-02	1.89E-02	2.21E-03	2.71E-03	1.08E-01	3.99E-05	-4.04E-01		
ETP- fw ¹	[CTUe]	3.43E+02	5.24E+00	1.52E+00	5.20E+01	2.18E-02	1.04E+00	7.64E+00	3.09E-02	-9.43E+00		
HTP-c ¹	[CTUh] 1.35E-07 2.97E-10 1.15E-09 7.09E-10 4.43E-12 7.32E-11 5.20E-09 1.07E-12 -8.47E-09											
HTP- nc 1	[CTUh]	6.77E-07	9.33E-09	6.59E-09	2.15E-08	1.98E-10	1.95E-09	2.90E-08	3.05E-11	-4.42E-08		
SQP ¹	-	4.81E+03	1.02E+01	1.80E+00	3.14E+01	1.36E-01	1.47E+00	8.48E+00	1.25E-01	-4.69E+02		
Continu	PM = Particulate matter; I					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-		
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be		
Disclaimers	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.											
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in		





			RES	OURCE (JSE PER	M ²					
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D	
PEAR	[MJ]	4.52E+02	1.47E-01	7.86E-01	1.54E+01	1.02E-01	3.10E-02	1.71E+00	5.33E-04	-9.16E+01	
PERM	[MJ]	3.35E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00	
PERT	[MJ]	7.87E+02	1.47E-01	7.86E-01	1.54E+01	1.02E-01	3.10E-02	1.71E+00	5.33E-04	-9.35E+01	
PENRE	[MJ]	4.93E+02	1.00E+01	4.97E+00	3.91E+00	9.99E-02	1.96E+00	2.14E+01	6.29E-02	-3.47E+01	
PENRM	[MJ]	9.74E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01	
PENRT	[MJ]	5.03E+02	1.00E+01	4.97E+00	3.91E+00	9.99E-02	1.96E+00	2.14E+01	6.29E-02	-3.49E+01	
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
FW	[^{m3}]	-2.90E+00	-4.24E-03	-1.45E-02	-2.67E-02	-2.59E-05	-9.54E-04	-9.20E-02	4.66E-05	1.49E-01	
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be the same as 1.12*10 -11 or 0.000000000112.										

		WASTE	CATEGO	RIES ANI	O OUTPU	T FLOW P	ER M ²					
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
RWD	[kg]	1.83E-03	3.30E-06	9.09E-06	5.09E-06	5.49E-07	7.11E-07	2.73E-05	1.01E-08	-1.07E-04		
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
Caption	HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy											
	The numbers are give	The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.										

	BIOGENIC CARBON/CARBON PER M ²								
Parameters	Unit	At the factory gate							
Biogenic carbon content in the product	[kg C]	7.72							
Biogenic carbon content In the included packaging	[kg C]	0.47							
Note 1 kg of biogenic carbon is equivalent to 44/12 kg of CO ₂									





No. 21 Vesterby Firestop, Multipanels, 30 mm slats, 20-29% opening

	ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
GWP-total	[kg CO ₂ eq.]	1.62E+00	6.31E-01	2.11E+00	7.76E-01	6.21E-03	1.26E-01	2.73E+01	2.64E-03	-2.28E+00			
GWP-fossil	[kg CO ₂ eq.]	2.73E+01	6.31E-01	3.79E-01	2.93E-01	6.20E-03	1.26E-01	1.95E+00	2.63E-03	-2.28E+00			
GWP-biogenic	[kg CO ₂ eq.]	-2.72E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	2.54E+01	0.00E+00	0.00E+00			
GWP-luluc	[kg CO ₂ eq.]	1.38E+00	2.93E-04	3.43E-04	4.83E-01	1.89E-05	6.05E-05	1.81E-03	1.55E-06	-6.77E-03			
ODP	[kg CFC 11 eq.]	9.81E-07	1.35E-08	4.10E-09	1.51E-08	1.39E-10	2.69E-09	3.97E-08	7.31E-11	-5.86E-08			
AP	[mol H+ eq.]	4.51E-01	2.55E-03	1.79E-03	3.26E-03	3.06E-05	5.73E-04	1.45E-02	1.90E-05	-1.78E-02			
EP-freshwater	[kg P eq.]	9.45E-03	4.40E-05	1.02E-04	5.20E-03	5.22E-06	8.85E-06	4.27E-04	2.10E-07	-9.61E-04			
EP-marine	[kg N eq.]	9.52E-02	9.68E-04	4.45E-04	3.72E-03	6.04E-06	2.27E-04	3.21E-03	7.30E-06	-3.47E-03			
EP-terrestrial	[mol N eq.]	1.70E+00	1.03E-02	3.65E-03	1.20E-02	6.94E-05	2.44E-03	3.59E-02	7.83E-05	-4.64E-02			
POCP	[kg NMVOC eq.]	2.00E-01	3.88E-03	1.26E-03	1.99E-03	1.69E-05	8.51E-04	1.08E-02	2.72E-05	-1.42E-02			
ADPm ¹	[kg Sb eq.]	1.34E-04	1.67E-06	4.54E-06	2.80E-06	1.36E-07	3.82E-07	8.44E-06	3.51E-09	-1.18E-05			
ADPf ¹	[MJ]	4.58E+02	9.04E+00	4.97E+00	2.96E+00	9.99E-02	1.77E+00	2.05E+01	6.29E-02	-3.29E+01			
WDP ¹	[m³ world eq. deprived]	2.43E+01	4.38E-02	1.81E-01	4.70E-01	1.15E-03	7.82E-03	1.89E-01	2.78E-03	-6.85E-01			
Caption	GWP-total = Global warming, total; GWP-fossil = Global warming, fossil fuels; GWP- biogenic = Global warming, biogenic; GWP- luluc = Global warming, land use and land conversion; ODP = Ozone depletion; AP = Acidification; EP-freshwater = Eutrophication (nutrient loading) – freshwater; EP-marine = Eutrophication (nutrient loading) – marine; EP- terrestrial = Eutrophication (nutrient loading) – terrestrial; POCP = Photochemical ozone creation; ADPm = Depletion of abiotic resources – minerals and metals; ADPf = Depletion of abiotic fossil resources; WDP = Depletion of water resources The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.												
Disclaimer	¹ Results of this environ	mental indicat						n or when the	re are limited ı	esults with			

		ADDITI	ONAL EN	VIRONME	NTAL IM	PACTS P	ER M ²				
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D	
PM	[Incidence of disease]	4.60E-06	4.91E-08	2.17E-08	5.04E-08	1.91E-10	9.89E-09	9.59E-08	4.05E-10	-2.49E-07	
IRP ²	[kBq U235 eq .]	6.45E+00	1.14E-02	3.36E-02	1.68E-02	2.21E-03	2.45E-03	1.04E-01	3.99E-05	-3.73E-01	
ETP- fw 1	[CTUe]	3.33E+02	4.73E+00	1.52E+00	4.62E+01	2.18E-02	9.37E-01	7.12E+00	3.09E-02	-8.79E+00	
HTP-c ¹	[CTUh] 1.22E-07 2.68E-10 1.15E-09 6.30E-10 4.43E-12 6.61E-11 5.14E-09 1.07E-12 -8.15E-09										
HTP- nc 1	[CTUh]	6.37E-07	8.43E-09	6.59E-09	1.91E-08	1.98E-10	1.76E-09	2.73E-08	3.05E-11	-4.15E-08	
SQP ¹	-	4.44E+03	9.19E+00	1.80E+00	2.79E+01	1.36E-01	1.33E+00	7.93E+00	1.25E-01	-4.25E+02	
Continu	PM = Particulate matter;					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-	
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be	
Disclaimers	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.										
	² This impact category mainly covers the potential impact of low-dose ionising radiation on human health in the nuclear fuel chain. It does not take into account effects resulting from possible nuclear accidents, occupational exposure or exposure due to the disposal of radioactive waste in underground facilities. Potential ionising radiation from the soil, from radon and from some building materials is also not measured by this indicator.										





			RES	OURCE (JSE PER	M ²					
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D	
PEAR	[MJ]	4.10E+02	1.32E-01	7.86E-01	1.37E+01	1.02E-01	2.80E-02	1.67E+00	5.33E-04	-8.27E+01	
PERM	[MJ]	3.01E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00	
PERT	[MJ]	7.12E+02	1.32E-01	7.86E-01	1.37E+01	1.02E-01	2.80E-02	1.67E+00	5.33E-04	-8.47E+01	
PENRE	[MJ]	4.51E+02	9.04E+00	4.97E+00	3.48E+00	9.99E-02	1.77E+00	2.05E+01	6.29E-02	-3.27E+01	
PENRM	[MJ]	8.74E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01	
PENRT	[MJ]	4.60E+02	9.04E+00	4.97E+00	3.48E+00	9.99E-02	1.77E+00	2.05E+01	6.29E-02	-3.29E+01	
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
FW	[^{m3}]	-2.65E+00	-3.83E-03	-1.45E-02	-2.37E-02	-2.59E-05	-8.62E-04	-8.99E-02	4.66E-05	1.42E-01	
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be										
	The numbers are give	en in Scientific				.00000000001		10 01 195, WI	IIIIE 1.12E-11	would be	

		WASTE	CATEGO	RIES ANI	OUTPU	T FLOW P	PER M ²				
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D	
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
RWD	[kg]	1.65E-03	2.98E-06	9.09E-06	4.53E-06	5.49E-07	6.42E-07	2.63E-05	1.01E-08	-9.89E-05	
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Caption	HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy										
	The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.										

	BIOGENIC CARBON/CARBON PER M ²									
Parameters	Unit	At the factory gate								
Biogenic carbon content in the product	[kg C]	g C] 6.92								
Biogenic carbon content In the included packaging	[kg C]	0.47								
Note	1 kg of biogenic carbon is equivalent to 44/12 kg of CO ₂									





No. 22 Vesterby Firestop, Multipanels, 30 mm slats, 30-40% opening

ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
GWP-total	[kg CO ₂ eq.]	2.45E+00	5.63E-01	2.11E+00	6.79E-01	6.21E-03	1.13E-01	2.43E+01	2.64E-03	-2.16E+00		
GWP-fossil	[kg CO ₂ eq.]	2.52E+01	5.63E-01	3.79E-01	2.56E-01	6.20E-03	1.12E-01	1.88E+00	2.63E-03	-2.16E+00		
GWP-biogenic	[kg CO ₂ eq.]	-2.42E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	2.25E+01	0.00E+00	0.00E+00		
GWP-luluc	[kg CO ₂ eq.]	1.37E+00	2.62E-04	3.43E-04	4.23E-01	1.89E-05	5.40E-05	1.63E-03	1.55E-06	-6.09E-03		
ODP	[kg CFC 11 eq.]	9.38E-07	1.21E-08	4.10E-09	1.33E-08	1.39E-10	2.40E-09	3.87E-08	7.31E-11	-5.57E-08		
AP	[mol H+ eq.]	4.32E-01	2.28E-03	1.79E-03	2.86E-03	3.06E-05	5.12E-04	1.41E-02	1.90E-05	-1.70E-02		
EP-freshwater	[kg P eq.]	8.84E-03	3.93E-05	1.02E-04	4.55E-03	5.22E-06	7.90E-06	4.12E-04	2.10E-07	-8.96E-04		
EP-marine	[kg N eq.]	8.96E-02	8.64E-04	4.45E-04	3.26E-03	6.04E-06	2.03E-04	3.07E-03	7.30E-06	-3.21E-03		
EP-terrestrial	[mol N eq.]	1.64E+00	9.22E-03	3.65E-03	1.05E-02	6.94E-05	2.18E-03	3.45E-02	7.83E-05	-4.34E-02		
POCP	[kg NMVOC eq.]	1.80E-01	3.46E-03	1.26E-03	1.74E-03	1.69E-05	7.60E-04	1.03E-02	2.72E-05	-1.33E-02		
ADPm ¹	[kg Sb eq.]	1.25E-04	1.49E-06	4.54E-06	2.45E-06	1.36E-07	3.41E-07	8.28E-06	3.51E-09	-1.13E-05		
ADPf ¹	[MJ]	4.14E+02	8.07E+00	4.97E+00	2.59E+00	9.99E-02	1.58E+00	1.96E+01	6.29E-02	-3.09E+01		
WDP ¹	[m³ world eq. deprived]	2.22E+01	3.91E-02	1.81E-01	4.11E-01	1.15E-03	6.99E-03	1.89E-01	2.78E-03	-6.31E-01		
Caption	GWP-total = Global warming, total; GWP-fossil = Global warming, fossil fuels; GWP- biogenic = Global warming, biogenic; GWP- luluc = Global warming, land use and land conversion; ODP = Ozone depletion; AP = Acidification; EP-freshwater = Eutrophication (nutrient loading) – freshwater; EP-marine = Eutrophication (nutrient loading) – marine; EP- terrestrial = Eutrophication (nutrient loading) – terrestrial; POCP = Photochemical ozone creation; ADPm = Depletion of abiotic resources – minerals and metals; ADPf = Depletion of abiotic fossil resources; WDP = Depletion of water resources The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 or 195, while 1.12E-11 would be											
Disclaimer	¹ Results of this environ	mental indicat				.000000000011 certainties on		n or when the	re are limited i	results with		

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PM	[Incidence of disease]	4.31E-06	4.38E-08	2.17E-08	4.41E-08	1.91E-10	8.83E-09	9.08E-08	4.05E-10	-2.28E-07			
IRP ²	[kBq U235 eq .]	5.74E+00	1.02E-02	3.36E-02	1.47E-02	2.21E-03	2.19E-03	1.00E-01	3.99E-05	-3.42E-01			
ETP- fw 1	[CTUe]	3.22E+02	4.23E+00	1.52E+00	4.04E+01	2.18E-02	8.37E-01	6.59E+00	3.09E-02	-8.14E+00			
HTP-c ¹	[CTUh]	1.10E-07	2.39E-10	1.15E-09	5.51E-10	4.43E-12	5.90E-11	5.09E-09	1.07E-12	-7.82E-09			
HTP- nc 1	[CTUh]	5.96E-07	7.52E-09	6.59E-09	1.67E-08	1.98E-10	1.57E-09	2.56E-08	3.05E-11	-3.88E-08			
SQP ¹	-	4.07E+03	8.20E+00	1.80E+00	2.44E+01	1.36E-01	1.19E+00	7.38E+00	1.25E-01	-3.80E+02			
Continu	PM = Particulate matter;		radiation - hu Human toxic						icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be			
Disclaimers	¹ Results of this environ	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.											
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE USE PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
PEAR	[MJ]	3.68E+02	1.18E-01	7.86E-01	1.20E+01	1.02E-01	2.50E-02	1.63E+00	5.33E-04	-7.39E+01				
PERM	[MJ]	2.68E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00				
PERT	[MJ]	6.36E+02	1.18E-01	7.86E-01	1.20E+01	1.02E-01	2.50E-02	1.63E+00	5.33E-04	-7.58E+01				
PENRE	[MJ]	4.08E+02	8.07E+00	4.97E+00	3.04E+00	9.99E-02	1.58E+00	1.96E+01	6.29E-02	-3.07E+01				
PENRM	[MJ]	7.75E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01				
PENRT	[MJ]	4.16E+02	8.07E+00	4.97E+00	3.04E+00	9.99E-02	1.58E+00	1.96E+01	6.29E-02	-3.09E+01				
SM	[kg]	0.00E+00	0.00E+00	0.00E+00										
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00										
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00										
FW	[^{m3}]	-2.39E+00	-3.42E-03	-1.45E-02	-2.08E-02	-2.59E-05	-7.70E-04	-8.77E-02	4.66E-05	1.34E-01				
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; RRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ¹¹ or 0.00000000112.													

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
RWD	[kg]	1.47E-03	2.66E-06	9.09E-06	3.96E-06	5.49E-07	5.73E-07	2.52E-05	1.01E-08	-9.07E-05			
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
Caption		HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy											
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be			

BIOGENIC CARBON/CARBON PER M ²									
Parameters	Unit	At the factory gate							
Biogenic carbon content in the product	[kg C]	6.12							
Biogenic carbon content In the included packaging	[kg C]	0.47							
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$							





No. 23 Vesterby Firestop, Multipanels, 30 mm perforated, 10-19% opening

	ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
GWP-total	[kg CO ₂ eq.]	-1.76E-01	6.99E-01	2.11E+00	8.73E-01	6.21E-03	1.40E-01	3.33E+01	2.64E-03	-2.42E+00			
GWP-fossil	[kg CO ₂ eq.]	3.14E+01	6.99E-01	3.79E-01	3.29E-01	6.20E-03	1.39E-01	2.01E+00	2.63E-03	-2.41E+00			
GWP-biogenic	[kg CO ₂ eq.]	-3.30E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	3.13E+01	0.00E+00	0.00E+00			
GWP-luluc	[kg CO ₂ eq.]	1.39E+00	3.25E-04	3.43E-04	5.44E-01	1.89E-05	6.70E-05	2.00E-03	1.55E-06	-7.45E-03			
ODP	[kg CFC 11 eq.]	1.06E-06	1.50E-08	4.10E-09	1.70E-08	1.39E-10	2.98E-09	4.06E-08	7.31E-11	-6.20E-08			
AP	[mol H+ eq.]	4.87E-01	2.83E-03	1.79E-03	3.67E-03	3.06E-05	6.35E-04	1.49E-02	1.90E-05	-1.87E-02			
EP-freshwater	[kg P eq.]	1.06E-02	4.88E-05	1.02E-04	5.85E-03	5.22E-06	9.80E-06	4.42E-04	2.10E-07	-1.03E-03			
EP-marine	[kg N eq.]	1.06E-01	1.07E-03	4.45E-04	4.19E-03	6.04E-06	2.52E-04	3.35E-03	7.30E-06	-3.74E-03			
EP-terrestrial	[mol N eq.]	1.82E+00	1.14E-02	3.65E-03	1.35E-02	6.94E-05	2.70E-03	3.74E-02	7.83E-05	-4.96E-02			
POCP	[kg NMVOC eq.]	2.37E-01	4.29E-03	1.26E-03	2.24E-03	1.69E-05	9.42E-04	1.12E-02	2.72E-05	-1.52E-02			
ADPm ¹	[kg Sb eq.]	1.52E-04	1.85E-06	4.54E-06	3.15E-06	1.36E-07	4.23E-07	8.60E-06	3.51E-09	-1.23E-05			
ADPf ¹	[MJ]	5.42E+02	1.00E+01	4.97E+00	3.33E+00	9.99E-02	1.96E+00	2.14E+01	6.29E-02	-3.50E+01			
WDP ¹	[m³ world eq. deprived]	2.86E+01	4.85E-02	1.81E-01	5.28E-01	1.15E-03	8.66E-03	1.89E-01	2.78E-03	-7.39E-01			
Caption	GWP-total = Global wa warming, land use and la EP-marine = Eutrophicatic creation; ADPm = Depl	nd conversion on (nutrient loa etion of abiotic	a; ODP = Ozo ading) – marir c resources –	ne depletion; ane; EP- terrest minerals and	AP = Acidifica rial = Eutroph metals; ADPf resources s number car	tion; EP-fresh ication (nutrie = Depletion o	water = Eutro nt loading) – t of abiotic fossil tten as: 1.95*	phication (nut errestrial; PO0 resources; W	rient loading) - CP = Photoch DP = Depletion	- freshwater; emical ozone on of water			
Disclaimer	¹ Results of this environ	mental indicat						n or when the	re are limited ı	esults with			

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PM	[Incidence of disease]	5.17E-06	5.44E-08	2.17E-08	5.67E-08	1.91E-10	1.09E-08	1.01E-07	4.05E-10	-2.71E-07			
IRP ²	[kBq U235 eq .]	7.85E+00	1.26E-02	3.36E-02	1.89E-02	2.21E-03	2.71E-03	1.08E-01	3.99E-05	-4.04E-01			
ETP- fw 1	[CTUe]	3.53E+02	5.24E+00	1.52E+00	5.20E+01	2.18E-02	1.04E+00	7.64E+00	3.09E-02	-9.47E+00			
HTP-c ¹	[CTUh]	1.47E-07	2.97E-10	1.15E-09	7.09E-10	4.43E-12	7.32E-11	5.20E-09	1.07E-12	-8.56E-09			
HTP- nc 1	[CTUh]	7.16E-07	9.33E-09	6.59E-09	2.15E-08	1.98E-10	1.95E-09	2.90E-08	3.05E-11	-4.46E-08			
SQP ¹	-	5.18E+03	1.02E+01	1.80E+00	3.14E+01	1.36E-01	1.47E+00	8.48E+00	1.25E-01	-4.69E+02			
Continu	PM = Particulate matter;					toxicity - fresh P = Soil quali			icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be			
Disclaimers	¹ Results of this environ	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.											
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE USE PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
PEAR	[MJ]	4.94E+02	1.47E-01	7.86E-01	1.54E+01	1.02E-01	3.10E-02	1.71E+00	5.33E-04	-9.16E+01				
PERM	[MJ]	3.68E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00				
PERT	[MJ]	8.62E+02	1.47E-01	7.86E-01	1.54E+01	1.02E-01	3.10E-02	1.71E+00	5.33E-04	-9.35E+01				
PENRE	[MJ]	5.34E+02	1.00E+01	4.97E+00	3.91E+00	9.99E-02	1.96E+00	2.14E+01	6.29E-02	-3.49E+01				
PENRM	[MJ]	1.00E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01				
PENRT	[MJ]	5.44E+02	1.00E+01	4.97E+00	3.91E+00	9.99E-02	1.96E+00	2.14E+01	6.29E-02	-3.50E+01				
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
FW	[^{m3}]	-3.15E+00	-4.24E-03	-1.45E-02	-2.67E-02	-2.59E-05	-9.54E-04	-9.20E-02	4.66E-05	1.50E-01				
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 2 or 195, while 1.12E-11 would be													
	The numbers are give	en in scientific				.000000000011		10 -01 195, WI	niie i.iZE-11	would be				

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RWD	[kg]	2.01E-03	3.30E-06	9.09E-06	5.09E-06	5.49E-07	7.11E-07	2.73E-05	1.01E-08	-1.07E-04				
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
Caption	HWD = Hazardous Wast for Recycling; MFR =			ER = Material		Recovery; EE								
	The numbers are give	en in 'scientific			is number can .12*10 ⁻¹¹ or 0.			10 ² or 195, wh	nile 1.12E-11 v	would be				

BIOGENIC CARBON/CARBON PER M ²									
Parameters	Unit	At the factory gate							
Biogenic carbon content in the product	[kg C]	7.72							
Biogenic carbon content In the included packaging	[kg C]	0.47							
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\mathrm{2}}$							





No. 24 Vesterby Firestop, Multipanels, 30 mm perforated, 20-29% opening

		ı	ENVIRON	MENTAL	IMPACTS	PER M ²				
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	-3.01E-01	6.31E-01	2.11E+00	7.76E-01	6.21E-03	1.26E-01	3.32E+01	2.64E-03	-2.31E+00
GWP-fossil	[kg CO ₂ eq.]	3.13E+01	6.31E-01	3.79E-01	2.93E-01	6.20E-03	1.26E-01	1.95E+00	2.63E-03	-2.30E+00
GWP-biogenic	[kg CO ₂ eq.]	-3.30E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	3.13E+01	0.00E+00	0.00E+00
GWP-luluc	[kg CO ₂ eq.]	1.39E+00	2.93E-04	3.43E-04	4.83E-01	1.89E-05	6.05E-05	1.81E-03	1.55E-06	-6.77E-03
ODP	[kg CFC 11 eq.]	1.06E-06	1.35E-08	4.10E-09	1.51E-08	1.39E-10	2.69E-09	3.97E-08	7.31E-11	-5.92E-08
AP	[mol H+ eq.]	4.87E-01	2.55E-03	1.79E-03	3.26E-03	3.06E-05	5.73E-04	1.45E-02	1.90E-05	-1.79E-02
EP-freshwater	[kg P eq.]	1.06E-02	4.40E-05	1.02E-04	5.20E-03	5.22E-06	8.85E-06	4.27E-04	2.10E-07	-9.69E-04
EP-marine	[kg N eq.]	1.06E-01	9.68E-04	4.45E-04	3.72E-03	6.04E-06	2.27E-04	3.21E-03	7.30E-06	-3.49E-03
EP-terrestrial	[mol N eq.]	1.82E+00	1.03E-02	3.65E-03	1.20E-02	6.94E-05	2.44E-03	3.59E-02	7.83E-05	-4.66E-02
POCP	[kg NMVOC eq.]	2.37E-01	3.88E-03	1.26E-03	1.99E-03	1.69E-05	8.51E-04	1.08E-02	2.72E-05	-1.43E-02
ADPm ¹	[kg Sb eq.]	1.51E-04	1.67E-06	4.54E-06	2.80E-06	1.36E-07	3.82E-07	8.44E-06	3.51E-09	-1.18E-05
ADPf ¹	[MJ]	5.40E+02	9.04E+00	4.97E+00	2.96E+00	9.99E-02	1.77E+00	2.05E+01	6.29E-02	-3.31E+01
WDP ¹	[m³ world eq. deprived]	2.85E+01	4.38E-02	1.81E-01	4.70E-01	1.15E-03	7.82E-03	1.89E-01	2.78E-03	-6.86E-01
Caption	GWP-total = Global wa warming, land use and la EP-marine = Eutrophication creation; ADPm = Depl	nd conversion on (nutrient loa etion of abiotic	n; ODP = Ozo ading) – marir c resources –	ne depletion; ne; EP- terrest minerals and	AP = Acidifica rial = Eutroph metals; ADPf resources	tion; EP-fresh ication (nutrie = Depletion o	water = Eutro nt loading) – to f abiotic fossil	phication (nut errestrial; PO resources; W	rient loading) - CP = Photoch DP = Depletion	- freshwater; emical ozone on of water
Disclaimer	¹ Results of this environ	mental indicat				.00000000001		n or when the	re are limited ı	esults with

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²												
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D			
PM	[Incidence of disease]	5.16E-06	4.91E-08	2.17E-08	5.04E-08	1.91E-10	9.89E-09	9.59E-08	4.05E-10	-2.51E-07			
IRP ²	[kBq U235 eq .]	7.84E+00	1.14E-02	3.36E-02	1.68E-02	2.21E-03	2.45E-03	1.04E-01	3.99E-05	-3.73E-01			
ETP- fw 1	[CTUe]	3.53E+02	4.73E+00	1.52E+00	4.62E+01	2.18E-02	9.37E-01	7.12E+00	3.09E-02	-8.83E+00			
HTP-c ¹	[CTUh]	1.47E-07	2.68E-10	1.15E-09	6.30E-10	4.43E-12	6.61E-11	5.14E-09	1.07E-12	-8.27E-09			
HTP- nc 1	[CTUh]	7.14E-07	8.43E-09	6.59E-09	1.91E-08	1.98E-10	1.76E-09	2.73E-08	3.05E-11	-4.20E-08			
SQP ¹	-	5.18E+03	9.19E+00	1.80E+00	2.79E+01	1.36E-01	1.33E+00	7.93E+00	1.25E-01	-4.25E+02			
Continu	PM = Particulate matter;		radiation - hu Human toxic						icity - cancer	effects; HTP-			
Caption	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	hile 1.12E-11	would be			
Disclaimers	¹ Results of this environ	¹ Results of this environmental indicator should be used with caution as the uncertainties on these are high or when there are limited results with indicators.											
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in			





	RESOURCE USE PER M ²													
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D				
PEAR	[MJ]	4.94E+02	1.32E-01	7.86E-01	1.37E+01	1.02E-01	2.80E-02	1.67E+00	5.33E-04	-8.27E+01				
PERM	[MJ]	3.68E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00				
PERT	[MJ]	8.61E+02	1.32E-01	7.86E-01	1.37E+01	1.02E-01	2.80E-02	1.67E+00	5.33E-04	-8.47E+01				
PENRE	[MJ]	5.32E+02	9.04E+00	4.97E+00	3.48E+00	9.99E-02	1.77E+00	2.05E+01	6.29E-02	-3.30E+01				
PENRM	[MJ]	9.29E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01				
PENRT	[MJ]	5.42E+02	9.04E+00	4.97E+00	3.48E+00	9.99E-02	1.77E+00	2.05E+01	6.29E-02	-3.31E+01				
SM	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
FW	[^{m3}]	-3.14E+00	-3.83E-03	-1.45E-02	-2.37E-02	-2.59E-05	-8.62E-04	-8.99E-02	4.66E-05	1.42E-01				
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM = Consumption of non-renewable primary energy resources used as raw materials; PENRT = Total consumption of non-renewable primary energy resources; SM = Consumption of secondary material; RSF = Consumption of renewable secondary fuel; NRSF = Consumption of non-renewable secondary fuel; FW = Net freshwater consumption													
	The numbers are give	en in 'scientific			is number can 12*10 ⁻¹¹ or 0			10 - or 195, wi	niie 1.12E-11	would be				

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²											
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
RWD	[kg]	2.01E-03	2.98E-06	9.09E-06	4.53E-06	5.49E-07	6.42E-07	2.63E-05	1.01E-08	-9.90E-05		
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
Caption	HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy											
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be		

BIOGENIC CARBON/CARBON PER M ²							
Parameters	Unit	At the factory gate					
Biogenic carbon content in the product	[kg C]	6.92					
Biogenic carbon content In the included packaging	[kg C]	0.47					
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO $_{\rm 2}$					





No. 25 Vesterby Firestop, Multipanels, 30 mm perforated, 30-40% opening

ENVIRONMENTAL IMPACTS PER M ²											
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D	
GWP-total	[kg CO ₂ eq.]	-4.27E-01	5.63E-01	2.11E+00	6.79E-01	6.21E-03	1.13E-01	3.31E+01	2.64E-03	-2.19E+00	
GWP-fossil	[kg CO ₂ eq.]	3.12E+01	5.63E-01	3.79E-01	2.56E-01	6.20E-03	1.12E-01	1.88E+00	2.63E-03	-2.19E+00	
GWP-biogenic	[kg CO ₂ eq.]	-3.30E+01	0.00E+00	1.73E+00	0.00E+00	0.00E+00	0.00E+00	3.13E+01	0.00E+00	0.00E+00	
GWP-luluc	[kg CO ₂ eq.]	1.39E+00	2.62E-04	3.43E-04	4.23E-01	1.89E-05	5.40E-05	1.63E-03	1.55E-06	-6.10E-03	
ODP	[kg CFC 11 eq.]	1.06E-06	1.21E-08	4.10E-09	1.33E-08	1.39E-10	2.40E-09	3.87E-08	7.31E-11	-5.64E-08	
AP	[mol H+ eq.]	4.86E-01	2.28E-03	1.79E-03	2.86E-03	3.06E-05	5.12E-04	1.41E-02	1.90E-05	-1.71E-02	
EP-freshwater	[kg P eq.]	1.06E-02	3.93E-05	1.02E-04	4.55E-03	5.22E-06	7.90E-06	4.12E-04	2.10E-07	-9.07E-04	
EP-marine	[kg N eq.]	1.06E-01	8.64E-04	4.45E-04	3.26E-03	6.04E-06	2.03E-04	3.07E-03	7.30E-06	-3.24E-03	
EP-terrestrial	[mol N eq.]	1.82E+00	9.22E-03	3.65E-03	1.05E-02	6.94E-05	2.18E-03	3.45E-02	7.83E-05	-4.37E-02	
POCP	[kg NMVOC eq.]	2.36E-01	3.46E-03	1.26E-03	1.74E-03	1.69E-05	7.60E-04	1.03E-02	2.72E-05	-1.35E-02	
ADPm ¹	[kg Sb eq.]	1.50E-04	1.49E-06	4.54E-06	2.45E-06	1.36E-07	3.41E-07	8.28E-06	3.51E-09	-1.13E-05	
ADPf ¹	[MJ]	5.37E+02	8.07E+00	4.97E+00	2.59E+00	9.99E-02	1.58E+00	1.96E+01	6.29E-02	-3.12E+01	
WDP ¹	[m³ world eq. deprived]	2.84E+01	3.91E-02	1.81E-01	4.11E-01	1.15E-03	6.99E-03	1.89E-01	2.78E-03	-6.33E-01	
Caption	GWP-total = Global warming, total; GWP-fossil = Global warming, fossil fuels; GWP- biogenic = Global warming, biogenic; GWP- luluc = Global warming, land use and land conversion; ODP = Ozone depletion; AP = Acidification; EP-freshwater = Eutrophication (nutrient loading) – freshwater; EP-marine = Eutrophication (nutrient loading) – marine; EP- terrestrial = Eutrophication (nutrient loading) – terrestrial; POCP = Photochemical ozone										
Disclaimer	¹ Results of this environ	mental indicat						n or when the	re are limited ı	esults with	

	ADDITIONAL ENVIRONMENTAL IMPACTS PER M ²											
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
PM	[Incidence of disease]	5.16E-06	4.38E-08	2.17E-08	4.41E-08	1.91E-10	8.83E-09	9.08E-08	4.05E-10	-2.30E-07		
IRP ²	[kBq U235 eq .]	7.83E+00	1.02E-02	3.36E-02	1.47E-02	2.21E-03	2.19E-03	1.00E-01	3.99E-05	-3.42E-01		
ETP- fw 1	[CTUe]	3.52E+02	4.23E+00	1.52E+00	4.04E+01	2.18E-02	8.37E-01	6.59E+00	3.09E-02	-8.20E+00		
HTP-c ¹	[CTUh]	1.47E-07	2.39E-10	1.15E-09	5.51E-10	4.43E-12	5.90E-11	5.09E-09	1.07E-12	-7.97E-09		
HTP- nc 1	[CTUh]	7.13E-07	7.52E-09	6.59E-09	1.67E-08	1.98E-10	1.57E-09	2.56E-08	3.05E-11	-3.94E-08		
SQP ¹	-	5.18E+03	8.20E+00	1.80E+00	2.44E+01	1.36E-01	1.19E+00	7.38E+00	1.25E-01	-3.80E+02		
Continu	PM = Particulate matter; IRP = Ionizing radiation - human health; ETP- fw = Ecotoxicity - freshwater; HTP-c = Human toxicity - cancer effects; HTP-nc = Human toxicity - non-cancer effects; SQP = Soil quality (dimensionless)											
Caption	The numbers are given in 'scientific' format, e.g. 1.95E+02. This number can also be rewritten as: 1.95*10 ² or 195, while 1.12E-11 would be the same as 1.12*10 ⁻¹¹ or 0.000000000112.											
Disclaimers	¹ Results of this environ	mental indicat	or should be u	used with cau	tion as the unindicators.	certainties on	these are high	or when the	re are limited	results with		
	² This impact category m into account effects re underground facilities. Po	sulting from p	ossible nuclea	ar accidents, o	occupational e	exposure or ex	cposure due to	the disposal	of radioactive	waste in		





	RESOURCE USE PER M ²											
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
PEAR	[MJ]	4.93E+02	1.18E-01	7.86E-01	1.20E+01	1.02E-01	2.50E-02	1.63E+00	5.33E-04	-7.39E+01		
PERM	[MJ]	3.68E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.94E+00		
PERT	[MJ]	8.61E+02	1.18E-01	7.86E-01	1.20E+01	1.02E-01	2.50E-02	1.63E+00	5.33E-04	-7.58E+01		
PENRE	[MJ]	5.31E+02	8.07E+00	4.97E+00	3.04E+00	9.99E-02	1.58E+00	1.96E+01	6.29E-02	-3.10E+01		
PENRM	[MJ]	8.57E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.51E-01		
PENRT	[MJ]	5.39E+02	8.07E+00	4.97E+00	3.04E+00	9.99E-02	1.58E+00	1.96E+01	6.29E-02	-3.12E+01		
SM	[kg]	0.00E+00	0.00E+00	0.00E+00								
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00								
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00								
FW	[^{m3}]	-3.13E+00	-3.42E-03	-1.45E-02	-2.08E-02	-2.59E-05	-7.70E-04	-8.77E-02	4.66E-05	1.35E-01		
Caption	PERE = Consumption of renewable primary energy; PERM = Consumption of renewable primary energy resources used as raw materials; PERT = Total consumption of renewable primary energy resources; PENRE = Consumption of non-renewable primary energy; PENRM =											

	WASTE CATEGORIES AND OUTPUT FLOW PER M ²											
Parameters	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D		
HWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
NHWD	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
RWD	[kg]	2.01E-03	2.66E-06	9.09E-06	3.96E-06	5.49E-07	5.73E-07	2.52E-05	1.01E-08	-9.10E-05		
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
MORE	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
Caption	HWD = Hazardous Waste Disposed; NHWD = Non-Hazardous Waste Disposed; RWD = Radioactive Waste Disposed; CRU = Components for Recycling; MFR = Material for Recycling; MER = Material for Energy Recovery; EEE = Exported Electrical Energy; EET = Exported Thermal Energy											
	The numbers are give	en in 'scientific				also be rewri		10 ² or 195, wl	nile 1.12E-11	would be		

BIOGENIC CARBON/CARBON PER M ²							
Parameters	Unit	At the factory gate					
Biogenic carbon content in the product	[kg C]	[kg C] 6.12					
Biogenic carbon content In the included packaging	[kg C]	0.47					
Note		1 kg of biogenic carbon is equivalent to 44/12 kg of CO ₂					





Additional information

LCA interpretation

Figure 1shows the relative contribution to different environmental impact categories in modules A1, A2, A3, A4, A5, B2, C1, C2, C3, C4 and D for product no. 14 Vesterby Firestop, Multi Panel 21 mm slat 10-19% opening.

For all environmental impact categories except GWP-total, the raw materials in A1 have the largest relative impact (50-92% contribution). In GWP-total, it may appear that A1 does not have a large impact, but this is because GWP-total is the sum of GWP-fossil and GWP-biogenic, which cancel each other out.

It is expected that the greatest potential environmental impacts come from the materials used in the products. This is largely due to the fact that the raw materials used in the products have already been processed before they are adapted and assembled into finished products at Vesterby Træteknik.

The contribution from A1 comes largely from the acoustic fabric, which consists of wool and viscose, and from plywood. Plywood makes up a large part of the weight of the products (70-90%), whereas acoustic fabric makes up a smaller part (3-6%), but in return acoustic fabric has relatively high impact per kg.

The relative contribution of raw material transport is between 0-12% of the total impact. Cleaning of the product during its lifetime has a significant contribution to GWP-luluc (28%) and EP-freshwater (37%).

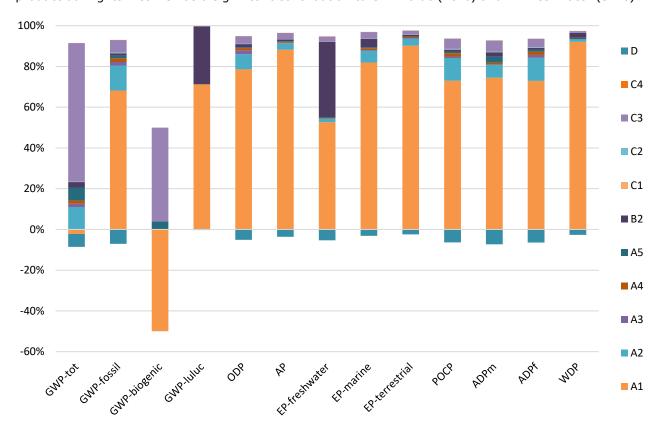


Figure 1Relative contribution to environmental impact categories for all declared modules for "Vesterby Firestop, Multi Panel 21 mm slat 10-19% opening".

Figure Figure 2be seen that the contribution of the modules to the impact of each individual product follows the same pattern. It can also be seen that the total impacts increase the greater the thickness of the plywood (12, 15, 21 or 30 mm) and the lower the degree of openings.





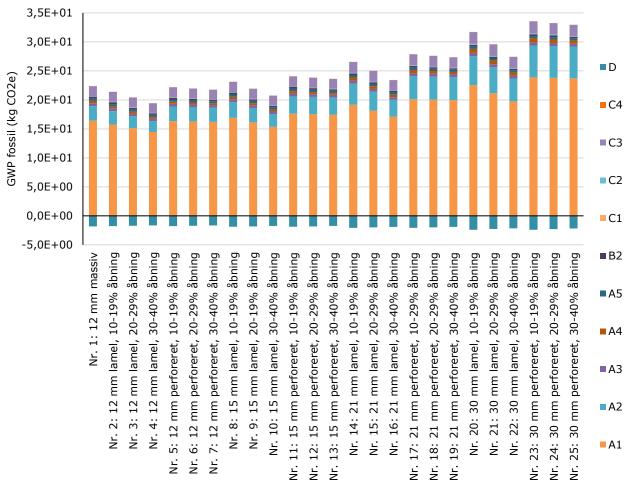


Figure 2Fossil greenhouse gas emissions (GWP-fossil) per declared product distributed across all declared modules.

Technical information about underlying scenarios

Transport to the construction site (A4)

Name	Value	Unit
Fuel quantity and type (alternatively: transport type)	0.019	kg diesel/ tkm
Transport distance	250	km
Capacity utilization (incl. empty return run)	Ecoinvent 3.9.1 standard	-
Gross density of transported product	331-525	kg/m³
Capacity utilization, volume factor	Ecoinvent 3.9.1 standard	-

Installation in the building (A5)

Name	Value	Unit
Material consumption, screws	0.0302	kg/m²
Material consumption, rawlplugs	0.0151	kg/m²
Electricity consumption	0.056	kWh/m²
Waste for recycling LDPE	0.00044	kg/m²
Waste for incineration LDPE	0.00148	kg/m²
Waste for recycling cardboard	0.000865	kg/m²
Waste for incineration cardboard	0.000383	kg/m²
Waste for recycling wood	0.87	kg/m²
Waste for combustion wood	0.0892	kg/m²
Total waste	0.9626	kg/m²





Reference lifetime

Name		Unit
Reference Service Life - RSL (Life)	30	Year
Declared product properties (by port), etc.		
Instructions for use (if provided by manufacturers)	See data sheets, installation and maintenance wood instructions	
Presumed quality of the installation work, according to manufacturer's instructions	on Vesterby Træteknik's website	
Outdoor environment (outdoor use) – e.g. weather resistance, wind, pollution, UV, etc.	https://www.vesterbypaneler.dk/	-
Indoor environment (indoor use), e.g. temperature, humidity, etc.	or by contacting Vesterby Træteknik.	
Usage conditions – e.g. mechanical impacts, frequency of use, etc.		
Maintenance (frequency, type, quality, replacement of parts)	Wash with a wet cloth and soapy water twice a year	

Use (B1-B7)

Name	Value	Unit
B2 - Maintenance		
Description of maintenance process	Wash with a wet cloth and soapy water twice a year	-
Maintenance cycle	2	/year
Soap consumption	0.003125	L/m²/cycle
Water consumption for maintenance	0.125	L/m²/cycle
Sewage	0.128	L/m²/cycle

End of life /Disposal (C1-C4) and Reuse, recycling and/or reuse potential (D)

Product	Type-separated Construction waste	Mixed construction Waste	kg/m²	/a/ For recycling	B For energy recovery	/a/B/For disposal	Recovered material	Recovered electricity	Recovered heat
12 mm solid	11.82	0 Kg/III-	0	8.97	2.44	0.42	9.0	4.4	8.9
12 mm slat, 10-19% opening	10.92	0	0	8.24	2.44	0.42	8.2	4.1	8.3
12 mm slat, 10-19% opening	10.92	0	0	7.51	2.27	0.42	7.5	3.8	7.7
12 mm slat, 30-40% opening	9.12	0	0	6.78	1.93	0.42	6.8	3.5	7.1
12 mm perforated, 10-19% opening	10.92	0	0	8.24	2.27	0.42	8.2	4.1	8.3
12 mm perforated, 20-29% opening	10.02	0	0	7.51	2.10	0.42	7.5	3.8	7.7
12 mm perforated, 30-40% opening	9.12	0	0	6.78	1.93	0.42	6.8	3.5	7.1
15 mm slat, 10-19% opening	12.77	0	0	9.74	2.62	0.42	9.7	4.7	9.5
15 mm slat, 20-19% opening	11.67	0	0	8,84	2.41	0.42	8.8	4.4	8.8
15 mm slat, 30-40% opening	10.56	0	0	7.94	2.20	0.42	7.9	4.0	8.1
15 mm perforated, 10-19% opening	12.77	0	0	9.74	2.62	0.42	9.7	4.7	9.5
15 mm perforated, 20-29% opening	11.67	0	0	8.84	2.41	0.42	8.8	4.4	8.8
15 mm perforated, 30-40% opening	10.56	0	0	7.94	2.20	0.42	7.9	4.0	8.1
21 mm slat, 10-19% opening	16.47	0	0	12.73	3.32	0.42	12.7	6.0	12.0
21 mm slat, 20-29% opening	14.95	0	0	11.50	3.04	0.42	11.5	5.5	11.0
21 mm slat, 30-40% opening	13.44	0	0	10.27	2.75	0.42	10.3	5.0	10.0
21 mm perforated, 10-29% opening	16.47	0	0	12.73	3.32	0.42	12.7	6.0	12.0
21 mm perforated, 20-29% opening	14.95	0	0	11.50	3.04	0.42	11.5	5.5	11.0
21 mm perforated, 30-40% opening	13.44	0	0	10.27	2.75	0.42	10.3	5.0	10.0
30 mm slat, 10-19% opening	22.02	0	0	17.23	4.38	0.42	17.2	7.8	15.7
30 mm slat, 20-29% opening	19.89	0	0	15.50	3.97	0.42	15.5	7.1	14.2
30 mm slat, 30-40% opening	17.75	0	0	13.77	3.57	0.42	13.7	6.4	12.8
30 mm perforated, 10-19% opening	22.02	0	0	17.23	4.38	0.42	17.2	7.8	15.7
30 mm perforated, 20-29% opening	19.89	0	0	15.50	3.97	0.42	15.5	7.1	14.2
30 mm perforated, 30-40% opening	17.75	0	0	13.77	3.57	0.42	13.7	6.4	12.8

Prerequisites for developing scenarios are Eurostat statistics for Denmark in 2020 (Eurostat, 2023b).

Indoor air





The EPD does not state anything about the release of hazardous substances into indoor air, as the horizontal standards for the measurements are not available.

Read more in EN15804+ A2 section 7.4.1.

Soil and water

The EPD does not indicate anything about the release of hazardous substances to soil and water, as the horizontal standards for the measurements are not available.

Read more in EN15804+ A2 section 7.4.2.





References

Publisher	L epddanmark
	www.epddanmark.dk Template version 2023.1
Program operator	Technological Institute Center for Buildings and Environment Gregersensvej DK-2630 Taastrup www.teknologisk.dk
LCA developer	BetterGreen ApS. Virumvej 64, 2830 Virum www.bettergreen.dk
LCA software /background data	SimaPro (ecoinvent v.3.9.1)
3. parts verifier	Kim Christiansen – kimconsult.dk

General program instructions

General program guide, version 2.0, spring 2020 www.epddanmark.dk

EN 15804

DS/EN 15804 + A2:2019 - "Sustainability in construction and civil engineering - Environmental product declarations - Basic rules for the product category construction products"

EN 15804

DS/EN 15804:2012+A2/AC:2021 - Corrigendum to DS/EN 15804 + A2:2019

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"Recycling rates for packaging waste for monitoring compliance with policy targets by packaging type" Accessed 05-06-2023: https://ec.europa.eu/eurostat/

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ISO 14025

DS/EN ISO 14025:2010 – "Environmental labels and declarations - Type III environmental product declarations - Principles and procedures

ISO 14040

DS/EN ISO 14040:2008 - "Environmental management - Life cycle assessment - Principles and structure"

ISO 14044

DS/EN ISO 14044:2008 - "Environmental management - Life cycle assessment - Requirements and guidance"