epddanmark

ECO PLATFORM EPD VERIFIED

Owner: Troldtekt A/S
No.: MD-25198-EN
Issued: 16.01.2026
Valid to: 16.01.2031

3rd PARTY **VERIFIED**

EPD

VERIFIED ENVIRONMENTAL PRODUCT DECLARATION | **ISO 14025 & EN 15804**

Owner of declaration
Troldtekt A/S
Sletvej 2A, 8310 Tranbjerg J
CVR: 45810011

Programme
EPD Danmark
www.epddanmark.dk

☐ Industry EPD
☒ Product EPD

Declared product(s)
1m² Backing acoustic fleece
1m² Backing mineral wool (20mm)
1m² Backing mineral wool (40mm)

Production sites

Site 1: Troldtekt
(Backing acoustic fleece)
Østergade 37-41, Troldhede
6920 Videbæk
Denmark

Site 2
(Backing mineral wool)
Filskovvej 21
7330 Brande
Denmark

Use of Guarantees of Origin
☒ No certificates used
☐ Electricity covered by GoO
☐ Biogas covered by GoO

Declared/ functional unit
1 m²

Year of production site data (A3)
01.01.2025 - 30.09.2025 / 01.01.2024 – 31.12.2024

EPD version
1.0

Issued: 16.01.2026
Valid to: 16.01.2031

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

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

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

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

EPD type
☐Cradle-to-gate with modules C1-C4 and D
☐Cradle-to-gate with options, modules C1-C4 and D
☒Cradle-to-grave and module D
☐Cradle-to-gate
☐Cradle-to-gate with options

CEN standard EN 15804 serves as the core PCR

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

☐ internal ☒ external

Third party verifier:

Mirko Miseljic

Martha Katrine Sørensen
EPD Danmark

Life cycle stages and modules (ND = not declared)																
Product			Construction process		Use							End of life				Beyond the system boundary
Raw material supply	Transport	Manufacturing	Transport	Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Re-use, recovery and recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Product information

Product description

Troldtekt® acoustic panels for ceiling and wall cladding help to ensure a pleasant atmosphere where it is possible to have conversations. When enhanced acoustic performance is needed Troldtekt acoustic panels are used in combinations with 3 variants of backing. All backings can be combined with panels in thicknesses 15mm, 25mm and 35mm.

Troldtekt Plus with fleece: Here, the backing comprises a thin acoustic fleece based on glass fibre, ensuring high acoustic effect at minimal thickness.

Troldtekt Plus with mineral Wool: Here, the backing comprises a layer of sealed mineral wool (stone wool) of either 20 or 40 mm, ensuring optimal sound absorption. The backing layer is cut to size and set back from the panel edges so that it fits between profiles or wooden battens.

This EPD relates solely to the addition to enhance the acoustic performance of the Troldtekt acoustic panels, the backing material. The impact from the panel should be taken from the parent EPDs MD-24138-EN, MD-24139-EN, MD-24140-EN and MD-24141-EN.

More information can be found on the website: www.troldtekt.com

The main product components are shown in the table below for a panel as production input.

Material	Weight of declared product (kg)	Weight-% of declared product
Acoustic fleece	0,10	71 %
Glue	0,04	29 %
Sum	0,14	100 %

Material	Weight of declared product (kg)	Weight-% of declared product
Stone wool (20mm)	2,02	96 %
Glue	0,08	4 %
Sum	2,10	100 %

Material	Weight of declared product (kg)	Weight-% of declared product
Stone wool (40mm)	2,37	97 %
Glue	0,08	3 %
Sum	2,45	100 %

Product packaging:

This EPD relates to an extra feature added to the Troldtekt panels before leaving the production site. No extra packaging material is therefore added to the combined product. For this reason no packaging material has been taken into account in this EPD, as there is no packaging, but final product packaging is taken into consideration in the EPDs of the Troldtekt acoustic panels. Hence, this EPD must always be applied complementary to this Troldtekt panel EPDs.

For further information, please find the links in the Reference list.

Representativity

This declaration, including data collection and the modelled foreground system including results, represents the production of Troldtekt Plus acoustic panels. Product specific data are based on average values collected for the calendar production year 2024 and 2025. Background data are based on Ecoinvent v.3.11 and are less than 6 years old. Generally, the used background datasets are of high quality, and the majority of the datasets are only a couple of years old.

Each of the product variants are declared individually, but with a simple average transport distance to the capitals of the three major different regional markets: Denmark, Sweden and Germany.

Hazardous substances

Wood wool panels do not contain any substances listed on the "Candidate List of Substances of Very High Concern for authorisation"

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

Product(s) use

The panels are applied as ceiling and wall claddings in offices, businesses, schools, institutions, cultural sites, sports centres, swimming pools and private homes etc.

Essential characteristics

Performance data of the product in accordance with the declaration of performance with respect to its essential characteristics according to EN 13168:2012+A1:2015, Thermal insulation products for buildings. Factory made wood wool (WW) products. Specification, and EN 13964:2014, Suspended ceilings. Requirements and test methods.

Further technical information can be obtained by contacting the manufacturer or on the manufacturer's website:

www.troldtekt.com/web-tools-downloads/download-materials/technical-data-sheets

Reference Service Life (RSL)

The technical service life of the panel is 50 years, based on the BBSR-Nutzungsdauertabelle, see references in the end of this EPD.

There is no influence of the ageing of the material on its technical performances.

Picture of product(s)

LCA background

Declared unit

The LCI and LCIA results in this EPD relates to environmental impacts incurred by the production and end-of-life of 1 m^2 of six different product variants.

Name	Value	Unit
Declared unit	1	m^2
Weight /DU		
Addition of acoustic fleece	0,150	kg/m^2
Addition of mineral wool (20mm)	2,09	kg/m^2
Addition of mineral wool (40mm)	2,45	kg/m^2

Functional unit

Not defined.

PCR

This EPD is developed according to the core rules for the product category of construction products in EN 15804:2012+A2:2019.

Energy modelling principles

Foreground system:

Information about the energy mix in the foreground system (emission factor is given as GWP-total):

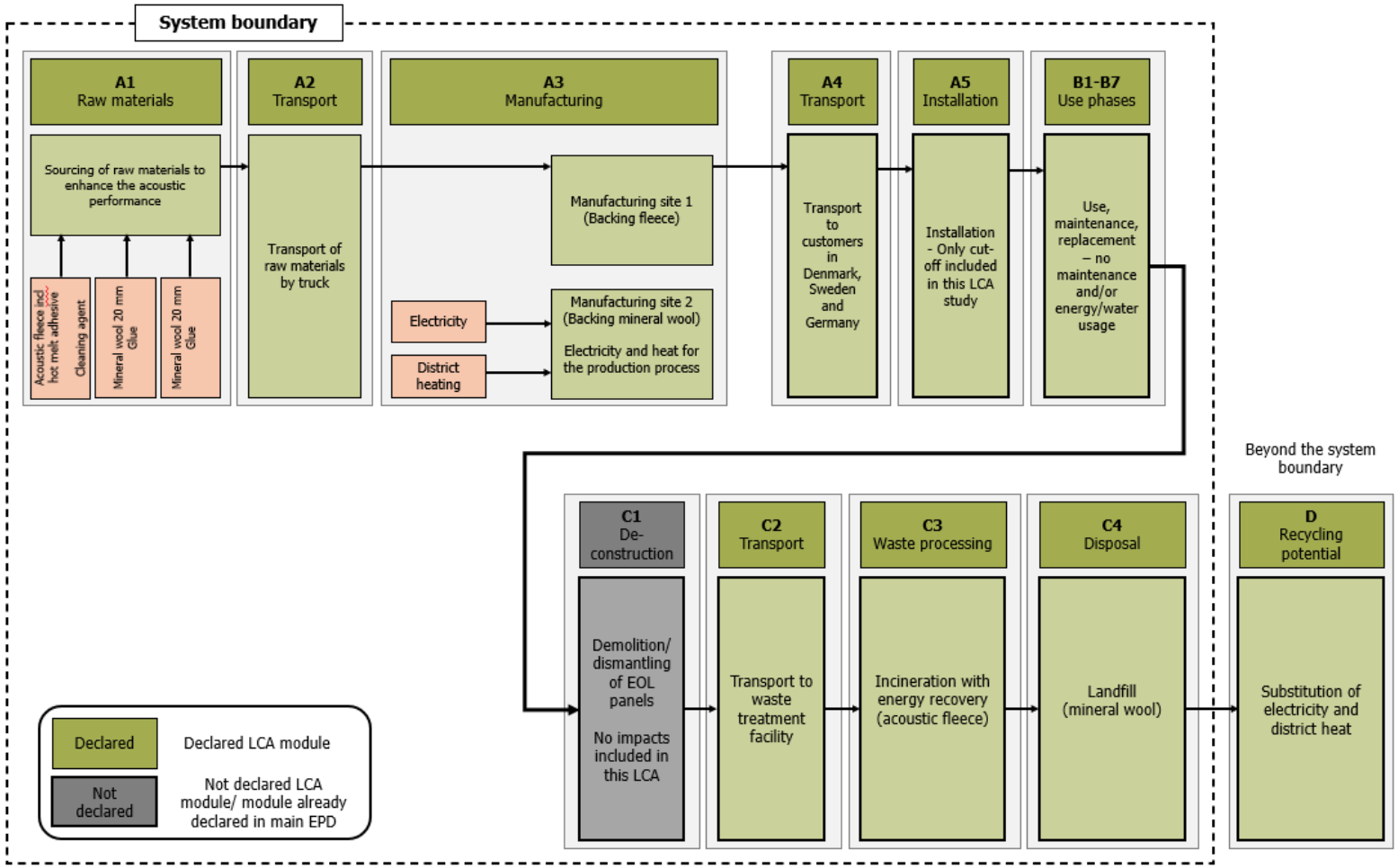
Dataset	EF	Unit
Electricity residual mix, DK	0,63	kg CO_2e/kWh
District heating, DK	0,0433	kg CO_2e/MJ

Background system:

Other processes upstream and downstream from the production are modelled with processes from the Ecoinvent v.3.11 database that is based on average data.

Table E.1 of EN 15804+A2:2019 has been used to assess the data quality.

Flowdiagram of the production process



System boundary

This EPD is based on a cradle-to-grave LCA, in which 99,8% of available product mass data and processes has been accounted for.

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

Product stage (A1-A3) includes:

A1 – Extraction and processing of raw materials

A2 – Transport to the production site

A3 – Manufacturing processes

The product stage comprises the acquisition of all raw materials, transported by truck to the production sites, up to the ”end-of-waste” state or final disposal.

The raw materials are glue and acoustic fleece made of glass fibre and stone wool. The raw materials are sourced in the EU.

The manufacturing process relates solely to bonding the backing material to the rear surface of the Troldtekt panel with glue. For assembly at site 2 (backing mineral wool) all electricity and thermal energy use is considered. For assembly at site 1 (backing acoustic fleece) energy use is already considered in the Troldtekt acoustic panel production, because the electricity consumption in the process cannot be separated.

The LCA results are declared in aggregated form for the product stage, which means, that the sub-modules A1, A2 and A3 are declared as one module A1-A3.

Construction process stage (A4-A5) includes:

For truck transport and distribution, an average transport distance of 622 km is applied, based on the capitals of the three major different regional markets: Denmark (Copenhagen), Sweden (Stockholm) and Germany (Berlin).

No installation and packaging materials are considered. This is related to the whole panel and included in the EPD of the Troldtekt acoustic panels. 5% material loss is assumed in terms of off-cuts. The off-cuts are transported to the nearest processing station for incineration or landfill respectively. The distance is assumed to be 50km.

Use stage (B1-B7) includes:

Modules B1 to B7 are declared but have no impacts, as no maintenance nor replacement is needed during the expected lifetime of the product-

End of Life (C1-C4) includes:

The EOL scenarios depends on the variant. The acoustic fleece is either incinerated (C3) or sent to landfill (C4) depending on the local regulations. The mineral wool is sent to landfill (C4) according to regulations. Technically it is possible to recycle the mineral wool however this is so far not widely used. For both scenarios a transportation distance (C2) of 50km is assumed.

The Troldtekt panels are after use de-installed and this is already included in the EPD of the Troldtekt acoustic panel. De-installation of the backing is not considered, as the backing is not removed from the panels.

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

The energy substituted from incineration of the acoustic fleece with energy recovery is modelled as a split of the average electricity grid mix (for electricity) and district heat of the three countries.

No credits are given for the landfill scenario.

LCA results

Results for: Backing acoustic fleece – EOL incineration

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq.	2,84E-01	8,01E-03	5,00E-02	0,00E+00	0,00E+00	1,33E-03	9,23E-02	0,00E+00	-8,09E-05
GWP-fossil	kg CO_2 eq.	3,02E-01	8,01E-03	5,00E-02	0,00E+00	0,00E+00	1,33E-03	7,43E-02	0,00E+00	-8,02E-05
GWP-biogenic	kg CO_2 eq.	-1,81E-02	1,79E-06	0,00E+00	0,00E+00	0,00E+00	2,67E-07	1,80E-02	0,00E+00	0,00E+00
GWP-luluc	kg CO_2 eq.	7,75E-04	3,63E-06	3,99E-05	0,00E+00	0,00E+00	4,77E-07	1,55E-06	0,00E+00	-7,20E-07
ODP	kg CFC 11 eq.	1,33E-08	1,19E-10	7,45E-10	0,00E+00	0,00E+00	2,64E-11	1,28E-10	0,00E+00	-1,29E-12
AP	mol H^+ eq.	1,80E-03	1,83E-05	1,20E-04	0,00E+00	0,00E+00	2,76E-06	6,18E-05	0,00E+00	-3,42E-07
EP-freshwater	kg P eq.	8,48E-06	6,28E-07	3,74E-06	0,00E+00	0,00E+00	8,95E-08	6,73E-06	0,00E+00	-9,37E-08
EP-marine	kg N eq.	2,70E-04	4,25E-06	1,06E-04	0,00E+00	0,00E+00	6,64E-07	1,14E-04	0,00E+00	-7,17E-08
EP-terrestrial	mol N eq.	3,03E-03	4,59E-05	2,94E-04	0,00E+00	0,00E+00	7,16E-06	2,99E-04	0,00E+00	-6,62E-07
POCP	kg NMVOC eq.	8,47E-04	2,57E-05	8,13E-05	0,00E+00	0,00E+00	4,60E-06	7,67E-05	0,00E+00	-1,88E-07
ADPm[1]	kg Sb eq.	3,75E-01	2,68E-08	1,87E-02	0,00E+00	0,00E+00	4,42E-09	1,54E-08	0,00E+00	-1,92E-09
ADPf[1]	MJ	4,69E+00	1,13E-01	2,81E-01	0,00E+00	0,00E+00	1,87E-02	6,70E-02	0,00E+00	-1,81E-03
WDP[1]	m^3 world eq. deprived	4,88E-02	5,28E-04	6,64E-03	0,00E+00	0,00E+00	9,29E-05	9,09E-03	0,00E+00	-8,68E-05
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use									
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.									

ADDITIONAL ENVIRONMENTAL IMPACTS PER M²										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1 – B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	1,78E-09	5,97E-10	4,03E-10	0,00E+00	0,00E+00	9,79E-11	4,75E-10	0,00E+00	-2,09E-12
IRP[2]	[kBq U235 eq.]	4,38E-04	9,21E-05	9,32E-05	0,00E+00	0,00E+00	2,41E-05	1,26E-04	0,00E+00	-6,45E-05
ETP-fw[1]	[CTUe]	4,52E-02	1,79E-02	2,57E-01	0,00E+00	0,00E+00	2,49E-03	4,39E-01	0,00E+00	-4,15E-04
HTP-c[1]	[CTUh]	4,05E-12	1,34E-12	1,20E-11	0,00E+00	0,00E+00	2,23E-13	2,28E-11	0,00E+00	-3,78E-14
HTP-nc[1]	[CTUh]	2,15E-10	7,10E-11	5,54E-10	0,00E+00	0,00E+00	1,18E-11	8,00E-10	0,00E+00	-2,02E-12
SQP[1]	-	2,05E-01	6,82E-02	3,74E-02	0,00E+00	0,00E+00	1,13E-02	3,54E-02	0,00E+00	-9,88E-04
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non-cancer effects; SQP = Soil Quality									
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. [2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.									

RESOURCE USE PER M²										
Parameter	**Unit**	**A1 – A3**	**A4**	**A5**	**B1 – B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	1,26E+00	1,56E-03	-9,55E-01	0,00E+00	0,00E+00	3,27E-04	-2,27E+00	0,00E+00	-1,24E-03
PERM	[MJ]	3,16E-02	0,00E+00	1,02E+00	0,00E+00	0,00E+00	0,00E+00	2,27E+00	0,00E+00	0,00E+00
PERT	[MJ]	1,29E+00	1,56E-03	6,41E-02	0,00E+00	0,00E+00	3,27E-04	1,73E-03	0,00E+00	-1,24E-03
PENRE	[MJ]	4,39E+00	1,13E-01	-7,42E-01	0,00E+00	0,00E+00	1,87E-02	-1,91E+00	0,00E+00	-1,81E-03
PENRM	[MJ]	2,58E-01	0,00E+00	1,01E+00	0,00E+00	0,00E+00	0,00E+00	1,97E+00	0,00E+00	0,00E+00
PENRT	[MJ]	4,65E+00	1,13E-01	2,66E-01	0,00E+00	0,00E+00	1,87E-02	6,70E-02	0,00E+00	-1,81E-03
SM	[kg]	1,59E-04	5,12E-05	4,51E-05	0,00E+00	0,00E+00	8,68E-06	6,08E-05	0,00E+00	-5,23E-07
RSF	[MJ]	1,16E-05	6,55E-07	1,15E-06	0,00E+00	0,00E+00	1,10E-07	9,52E-07	0,00E+00	-4,59E-09
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]	1,18E-03	1,54E-05	1,11E-04	0,00E+00	0,00E+00	2,55E-06	1,13E-04	0,00E+00	-2,52E-06
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water									

WASTE CATEGORIES AND OUTPUT FLOWS PER M²										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1 – B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	1,42E-03	1,98E-04	3,25E-03	0,00E+00	0,00E+00	2,72E-05	9,02E-03	0,00E+00	-5,19E-06
NHWD	[kg]	3,56E-02	3,71E-03	1,43E-01	0,00E+00	0,00E+00	5,73E-04	2,62E-01	0,00E+00	-4,58E-04
RWD	[kg]	7,58E-05	2,26E-08	3,81E-06	0,00E+00	0,00E+00	5,99E-09	3,21E-08	0,00E+00	-1,49E-08
CRU	[kg]	8,38E-06	0,00E+00	4,19E-07	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	2,92E-04	0,00E+00	1,46E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	[kg]	0,00E+00	0,00E+00	7,50E-02	0,00E+00	0,00E+00	0,00E+00	1,48E-01	0,00E+00	0,00E+00
EEE	[MJ]	1,28E-05	0,00E+00	6,40E-07	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 re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy									

BIOGENIC CARBON CONTENT PER M²		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0,00792
Biogenic carbon content in accompanying packaging	kg C	0
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

Results for: Backing acoustic fleece – EOL landfill

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq.	2,84E-01	8,01E-03	1,67E-02	0,00E+00	0,00E+00	1,33E-03	0,00E+00	1,88E-02	0,00E+00
GWP-fossil	kg CO_2 eq.	3,02E-01	8,01E-03	1,67E-02	0,00E+00	0,00E+00	1,33E-03	0,00E+00	8,68E-04	0,00E+00
GWP-biogenic	kg CO_2 eq.	-1,81E-02	1,79E-06	0,00E+00	0,00E+00	0,00E+00	2,67E-07	0,00E+00	1,80E-02	0,00E+00
GWP-luluc	kg CO_2 eq.	7,75E-04	3,63E-06	3,94E-05	0,00E+00	0,00E+00	4,77E-07	0,00E+00	1,57E-07	0,00E+00
ODP	kg CFC 11 eq.	1,33E-08	1,19E-10	7,00E-10	0,00E+00	0,00E+00	2,64E-11	0,00E+00	3,24E-11	0,00E+00
AP	mol H^+ eq.	1,80E-03	1,83E-05	9,57E-05	0,00E+00	0,00E+00	2,76E-06	0,00E+00	5,41E-06	0,00E+00
EP-freshwater	kg P eq.	8,48E-06	6,28E-07	5,45E-07	0,00E+00	0,00E+00	8,95E-08	0,00E+00	3,92E-08	0,00E+00
EP-marine	kg N eq.	2,70E-04	4,25E-06	1,53E-05	0,00E+00	0,00E+00	6,64E-07	0,00E+00	2,31E-06	0,00E+00
EP-terrestrial	mol N eq.	3,03E-03	4,59E-05	1,71E-04	0,00E+00	0,00E+00	7,16E-06	0,00E+00	2,53E-05	0,00E+00
POCP	kg NMVOC eq.	8,47E-04	2,57E-05	5,11E-05	0,00E+00	0,00E+00	4,60E-06	0,00E+00	1,02E-05	0,00E+00
ADPm[1]	kg Sb eq.	3,75E-01	2,68E-08	1,87E-02	0,00E+00	0,00E+00	4,42E-09	0,00E+00	1,11E-09	0,00E+00
ADPf[1]	MJ	4,69E+00	1,13E-01	2,62E-01	0,00E+00	0,00E+00	1,87E-02	0,00E+00	2,16E-02	0,00E+00
WDP[1]	m^3 world eq. deprived	4,88E-02	5,28E-04	3,02E-03	0,00E+00	0,00E+00	9,29E-05	0,00E+00	7,41E-05	0,00E+00
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use									
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.									

ADDITIONAL ENVIRONMENTAL IMPACTS PER M²										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1 – B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	1,78E-09	5,97E-10	2,47E-10	0,00E+00	0,00E+00	9,79E-11	0,00E+00	1,37E-10	0,00E+00
IRP[2]	[kBq U235 eq.]	4,38E-04	9,21E-05	4,63E-05	0,00E+00	0,00E+00	2,41E-05	0,00E+00	1,84E-05	0,00E+00
ETP-fw[1]	[CTUe]	4,52E-02	1,79E-02	1,22E-02	0,00E+00	0,00E+00	2,49E-03	0,00E+00	1,16E-03	0,00E+00
HTP-c[1]	[CTUh]	4,05E-12	1,34E-12	4,74E-13	0,00E+00	0,00E+00	2,23E-13	0,00E+00	1,06E-13	0,00E+00
HTP-nc[1]	[CTUh]	2,15E-10	7,10E-11	2,25E-11	0,00E+00	0,00E+00	1,18E-11	0,00E+00	3,21E-12	0,00E+00
SQP[1]	-	2,05E-01	6,82E-02	4,23E-02	0,00E+00	0,00E+00	1,13E-02	0,00E+00	4,38E-02	0,00E+00
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non-cancer effects; SQP = Soil Quality									
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. [2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.									

RESOURCE USE PER M²										
Parameter	**Unit**	**A1 – A3**	**A4**	**A5**	**B1 – B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	1,26E+00	1,56E-03	6,35E-02	0,00E+00	0,00E+00	3,27E-04	0,00E+00	4,46E-04	0,00E+00
PERM	[MJ]	3,16E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	1,29E+00	1,56E-03	6,35E-02	0,00E+00	0,00E+00	3,27E-04	0,00E+00	4,46E-04	0,00E+00
PENRE	[MJ]	4,39E+00	1,13E-01	2,47E-01	0,00E+00	0,00E+00	1,87E-02	0,00E+00	2,16E-02	0,00E+00
PENRM	[MJ]	2,58E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	4,65E+00	1,13E-01	2,47E-01	0,00E+00	0,00E+00	1,87E-02	0,00E+00	2,16E-02	0,00E+00
SM	[kg]	1,59E-04	5,12E-05	1,80E-05	0,00E+00	0,00E+00	8,68E-06	0,00E+00	5,14E-06	0,00E+00
RSF	[MJ]	1,16E-05	6,55E-07	7,34E-07	0,00E+00	0,00E+00	1,10E-07	0,00E+00	1,29E-07	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]	1,18E-03	1,54E-05	7,32E-05	0,00E+00	0,00E+00	2,55E-06	0,00E+00	2,46E-05	0,00E+00
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water									

WASTE CATEGORIES AND OUTPUT FLOWS PER M²										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1 – B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	1,42E-03	1,98E-04	1,09E-04	0,00E+00	0,00E+00	2,72E-05	0,00E+00	1,63E-05	0,00E+00
NHWD	[kg]	3,56E-02	3,71E-03	2,58E-03	0,00E+00	0,00E+00	5,73E-04	0,00E+00	3,91E-04	0,00E+00
RWD	[kg]	7,58E-05	2,26E-08	3,80E-06	0,00E+00	0,00E+00	5,99E-09	0,00E+00	4,34E-09	0,00E+00
CRU	[kg]	8,38E-06	0,00E+00	4,19E-07	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	2,92E-04	0,00E+00	1,46E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	[MJ]	1,28E-05	0,00E+00	6,40E-07	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 re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy									

BIOGENIC CARBON CONTENT PER M²		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0,00792
Biogenic carbon content in accompanying packaging	kg C	0
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

Results for: Backing mineral wool (20mm)

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq.	2,61E+00	1,20E-01	1,52E-01	0,00E+00	0,00E+00	1,98E-02	0,00E+00	2,82E-01	0,00E+00
GWP-fossil	kg CO_2 eq.	2,87E+00	1,20E-01	1,51E-01	0,00E+00	0,00E+00	1,98E-02	0,00E+00	1,31E-02	0,00E+00
GWP-biogenic	kg CO_2 eq.	-2,69E-01	2,66E-05	0,00E+00	0,00E+00	0,00E+00	3,98E-06	0,00E+00	2,69E-01	0,00E+00
GWP-luluc	kg CO_2 eq.	1,74E-03	5,42E-05	9,04E-05	0,00E+00	0,00E+00	7,12E-06	0,00E+00	7,49E-06	0,00E+00
ODP	kg CFC 11 eq.	1,15E-08	1,77E-09	7,02E-10	0,00E+00	0,00E+00	3,95E-10	0,00E+00	3,64E-10	0,00E+00
AP	mol H^+ eq.	1,59E-02	2,74E-04	8,14E-04	0,00E+00	0,00E+00	4,13E-05	0,00E+00	9,16E-05	0,00E+00
EP-freshwater	kg P eq.	1,25E-04	9,37E-06	6,86E-06	0,00E+00	0,00E+00	1,34E-06	0,00E+00	1,14E-06	0,00E+00
EP-marine	kg N eq.	2,36E-03	6,35E-05	1,24E-04	0,00E+00	0,00E+00	9,91E-06	0,00E+00	3,52E-05	0,00E+00
EP-terrestrial	mol N eq.	3,62E-02	6,86E-04	1,87E-03	0,00E+00	0,00E+00	1,07E-04	0,00E+00	3,84E-04	0,00E+00
POCP	kg NMVOC eq.	7,13E-03	3,84E-04	3,87E-04	0,00E+00	0,00E+00	6,87E-05	0,00E+00	1,39E-04	0,00E+00
ADPm[1]	kg Sb eq.	3,02E-06	4,00E-07	1,76E-07	0,00E+00	0,00E+00	6,60E-08	0,00E+00	1,95E-08	0,00E+00
ADPf[1]	MJ	3,72E+01	1,68E+00	1,97E+00	0,00E+00	0,00E+00	2,79E-01	0,00E+00	3,20E-01	0,00E+00
WDP[1]	m^3 world eq. deprived	3,42E-01	7,88E-03	1,83E-02	0,00E+00	0,00E+00	1,39E-03	0,00E+00	1,41E-02	0,00E+00
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use									
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.									

ADDITIONAL ENVIRONMENTAL IMPACTS PER M²										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1 – B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	3,29E-07	8,91E-09	1,71E-08	0,00E+00	0,00E+00	1,46E-09	0,00E+00	2,11E-09	0,00E+00
IRP[2]	[kBq U235 eq.]	8,44E-02	1,37E-03	4,32E-03	0,00E+00	0,00E+00	3,60E-04	0,00E+00	1,92E-04	0,00E+00
ETP-fw[1]	[CTUe]	1,29E+01	2,67E-01	6,72E-01	0,00E+00	0,00E+00	3,71E-02	0,00E+00	2,14E-01	0,00E+00
HTP-c[1]	[CTUh]	3,79E-09	2,00E-11	1,91E-10	0,00E+00	0,00E+00	3,33E-12	0,00E+00	2,37E-12	0,00E+00
HTP-nc[1]	[CTUh]	1,63E-07	1,06E-09	8,21E-09	0,00E+00	0,00E+00	1,77E-10	0,00E+00	5,33E-11	0,00E+00
SQP[1]	-	5,22E+01	1,02E+00	2,70E+00	0,00E+00	0,00E+00	1,69E-01	0,00E+00	6,29E-01	0,00E+00
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non-cancer effects; SQP = Soil Quality									
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. [2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.									

RESOURCE USE PER M²										
Parameter	**Unit**	**A1 – A3**	**A4**	**A5**	**B1 – B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	7,25E+00	2,34E-02	3,64E-01	0,00E+00	0,00E+00	4,88E-03	0,00E+00	2,99E-03	0,00E+00
PERM	[MJ]	4,13E+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
PERT	[MJ]	1,14E+01	2,34E-02	3,64E-01	0,00E+00	0,00E+00	4,88E-03	0,00E+00	2,99E-03	0,00E+00
PENRE	[MJ]	3,60E+01	1,68E+00	1,91E+00	0,00E+00	0,00E+00	2,79E-01	0,00E+00	3,20E-01	0,00E+00
PENRM	[MJ]	1,30E+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
PENRT	[MJ]	3,73E+01	1,68E+00	1,91E+00	0,00E+00	0,00E+00	2,79E-01	0,00E+00	3,20E-01	0,00E+00
SM	[kg]	2,68E-03	7,65E-04	1,83E-04	0,00E+00	0,00E+00	1,30E-04	0,00E+00	7,97E-05	0,00E+00
RSF	[MJ]	3,18E-05	9,77E-06	2,25E-06	0,00E+00	0,00E+00	1,64E-06	0,00E+00	1,66E-06	0,00E+00
NRSF	[MJ]	1,89E+00	0,00E+00	9,46E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m³]	1,46E-02	2,30E-04	7,59E-04	0,00E+00	0,00E+00	3,80E-05	0,00E+00	3,31E-04	0,00E+00
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water									

WASTE CATEGORIES AND OUTPUT FLOWS PER M²										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1 – B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	2,79E-02	2,95E-03	1,58E-03	0,00E+00	0,00E+00	4,06E-04	0,00E+00	3,65E-04	0,00E+00
NHWD	[kg]	9,94E-01	5,53E-02	5,33E-02	0,00E+00	0,00E+00	8,56E-03	0,00E+00	8,43E-03	0,00E+00
RWD	[kg]	4,84E-04	3,37E-07	2,42E-05	0,00E+00	0,00E+00	8,94E-08	0,00E+00	4,67E-08	0,00E+00
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
MER	[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 re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy									

BIOGENIC CARBON CONTENT PER M²		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0
Biogenic carbon content in accompanying packaging	kg C	0
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

Results for: Backing mineral wool (40mm)

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq.	2,15E+00	1,39E-01	1,31E-01	0,00E+00	0,00E+00	2,33E-02	0,00E+00	3,10E-01	0,00E+00
GWP-fossil	kg CO_2 eq.	2,45E+00	1,39E-01	1,31E-01	0,00E+00	0,00E+00	2,33E-02	0,00E+00	1,53E-02	0,00E+00
GWP-biogenic	kg CO_2 eq.	-2,94E-01	2,79E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,94E-01	0,00E+00
GWP-luluc	kg CO_2 eq.	2,09E-03	4,99E-05	1,08E-04	0,00E+00	0,00E+00	8,35E-06	0,00E+00	8,78E-06	0,00E+00
ODP	kg CFC 11 eq.	1,64E-08	2,77E-09	1,00E-09	0,00E+00	0,00E+00	4,63E-10	0,00E+00	4,27E-10	0,00E+00
AP	mol H^+ eq.	1,39E-02	2,89E-04	7,19E-04	0,00E+00	0,00E+00	4,84E-05	0,00E+00	1,07E-04	0,00E+00
EP-freshwater	kg P eq.	1,27E-04	9,36E-06	6,98E-06	0,00E+00	0,00E+00	1,57E-06	0,00E+00	1,34E-06	0,00E+00
EP-marine	kg N eq.	2,45E-03	6,95E-05	1,29E-04	0,00E+00	0,00E+00	1,16E-05	0,00E+00	4,12E-05	0,00E+00
EP-terrestrial	mol N eq.	3,98E-02	7,50E-04	2,06E-03	0,00E+00	0,00E+00	1,25E-04	0,00E+00	4,50E-04	0,00E+00
POCP	kg NMVOC eq.	6,93E-03	4,81E-04	3,82E-04	0,00E+00	0,00E+00	8,05E-05	0,00E+00	1,62E-04	0,00E+00
ADPm[1]	kg Sb eq.	3,18E-06	4,63E-07	1,87E-07	0,00E+00	0,00E+00	7,74E-08	0,00E+00	2,28E-08	0,00E+00
ADPf[1]	MJ	3,29E+01	1,96E+00	1,78E+00	0,00E+00	0,00E+00	3,27E-01	0,00E+00	3,75E-01	0,00E+00
WDP[1]	m^3 world eq. deprived	3,16E-01	9,72E-03	1,72E-02	0,00E+00	0,00E+00	1,63E-03	0,00E+00	1,65E-02	0,00E+00
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use									
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.									

ADDITIONAL ENVIRONMENTAL IMPACTS PER M²										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1 – B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	3,37E-07	1,02E-08	1,76E-08	0,00E+00	0,00E+00	1,71E-09	0,00E+00	2,47E-09	0,00E+00
IRP[2]	[kBq U235 eq.]	6,71E-02	2,52E-03	3,51E-03	0,00E+00	0,00E+00	4,22E-04	0,00E+00	2,25E-04	0,00E+00
ETP-fw[1]	[CTUe]	7,65E+00	2,60E-01	4,10E-01	0,00E+00	0,00E+00	4,35E-02	0,00E+00	2,51E-01	0,00E+00
HTP-c[1]	[CTUh]	1,93E-09	2,33E-11	9,78E-11	0,00E+00	0,00E+00	3,90E-12	0,00E+00	2,78E-12	0,00E+00
HTP-nc[1]	[CTUh]	2,18E-08	1,24E-09	1,17E-09	0,00E+00	0,00E+00	2,07E-10	0,00E+00	6,25E-11	0,00E+00
SQP[1]	-	6,62E+01	1,18E+00	3,41E+00	0,00E+00	0,00E+00	1,98E-01	0,00E+00	7,38E-01	0,00E+00
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non-cancer effects; SQP = Soil Quality									
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. [2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.									

RESOURCE USE PER M²										
Parameter	**Unit**	**A1 – A3**	**A4**	**A5**	**B1 – B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	6,52E+00	3,42E-02	3,28E-01	0,00E+00	0,00E+00	5,73E-03	0,00E+00	3,51E-03	0,00E+00
PERM	[MJ]	5,32E+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
PERT	[MJ]	1,18E+01	3,42E-02	3,28E-01	0,00E+00	0,00E+00	5,73E-03	0,00E+00	3,51E-03	0,00E+00
PENRE	[MJ]	3,17E+01	1,96E+00	1,72E+00	0,00E+00	0,00E+00	3,27E-01	0,00E+00	3,76E-01	0,00E+00
PENRM	[MJ]	1,31E+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
PENRT	[MJ]	3,30E+01	1,96E+00	1,72E+00	0,00E+00	0,00E+00	3,27E-01	0,00E+00	3,76E-01	0,00E+00
SM	[kg]	3,10E-03	9,08E-04	2,13E-04	0,00E+00	0,00E+00	1,52E-04	0,00E+00	9,34E-05	0,00E+00
RSF	[MJ]	3,68E-05	1,15E-05	2,61E-06	0,00E+00	0,00E+00	1,92E-06	0,00E+00	1,95E-06	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]	1,74E-02	2,66E-04	9,03E-04	0,00E+00	0,00E+00	4,46E-05	0,00E+00	3,88E-04	0,00E+00
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water									

WASTE CATEGORIES AND OUTPUT FLOWS PER M²										
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1 – B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	2,76E-02	2,84E-03	1,57E-03	0,00E+00	0,00E+00	4,75E-04	0,00E+00	4,27E-04	0,00E+00
NHWD	[kg]	6,99E-01	6,00E-02	3,89E-02	0,00E+00	0,00E+00	1,00E-02	0,00E+00	9,88E-03	0,00E+00
RWD	[kg]	3,21E-04	6,27E-07	1,61E-05	0,00E+00	0,00E+00	1,05E-07	0,00E+00	5,48E-08	0,00E+00
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
MER	[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 re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy									

BIOGENIC CARBON CONTENT PER M²		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0
Biogenic carbon content in accompanying packaging	kg C	0
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

Additional information

LCA interpretation

The environmental impact of adding acoustic fleece or mineral wool backing is relatively small compared to the overall impact of the complete Troldtekt panel system, while contributing to improved acoustic performance.

Global Warming Potential (GWP) for fleece backing is primarily driven by raw material supply (A1), whereas mineral wool variants show higher impacts due to material weight and production processes.

End-of-life treatment contributes significantly to non-hazardous waste flows, particularly for mineral wool, but offers limited recovery potential.

Technical information on scenarios

Transport to the building site (A4)

Scenario information	Value	Unit
Fuel type	Diesel	-
Vehicle type	Lorry, EURO 6, >16-32 t gross weight	-
Transport distance to markets	312 (DK) 957 (DE) 597 (SE) 622 (average)	km
Capacity utilisation (including empty runs)	85	%
Gross density of products transported	61 - 403	kg/m^3
Capacity utilisation volume factor	1	-

Installation of the product in the building (A5)

Scenario information	Value	Unit
Ancillary materials (screws)	n/a	kg
Energy type and consumption	n/a	kWh
Waste materials (packaging)	n/a	kg
Output materials (off-cuts)	n/a	kg
Direct emissions to air, soil or water	n/a	kg

Reference service life

RSL information		Unit
Reference service Life	50	Years
Declared product properties	www.troldtekt.com/dops/english	-
Outdoor environment	No	-
Indoor environment	Yes	-
Installation	www.troldtekt.dk/produkter/montering/monteringsvejledninger	-

Use (B1-B7)

Scenario information	Value	Unit
B1 – Use		
Carbonatization	n/a	kg CO_2
B2 – Maintenance		
Maintenance process	n/a	
Maintenance cycle	n/a	/year
Ancillary materials for maintenance (specify which)	n/a	kg/cycle
Waste materials resulting from maintenance (specify which)	n/a	kg
Net freshwater consumption during maintenance	n/a	m^3
Energy input during maintenance	n/a	kWh
B4 – Replacement		
Replacement cycle	n/a	/year
Energy input during replacement	n/a	kWh
Exchange of worn parts during products life cycle	n/a	kg

End of life (C1-C4)

Scenario information	Value	Unit
Collected for incineration (acoustic fleece)	0,148	kg
Collected for landfill (mineral wool 20mm/40mm)	2,20 / 2,57	kg

Re-use, recovery and recycling potential (D)

Scenario information/Material	Value	Unit
Scenario incineration: Displaced material	n/a	kg

Indoor air

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

Troldtekt Acoustic panels are Indoor Climate Labelled, M1 labelled, Blauer Engel.

Soil and water

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

References

Publisher	epddanmark www.epddanmark.dk Template version 2024.1
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3rd party verifier	Mirko Miseljic LCA Specialists lcaspecialists@outlook.com Verified according to Verification Checklist 1 v. 2.9.1.

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

EN 15804
DS/EN 15804 + A2:2019 - "Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products"

Product Category Rule A
Product Category Rule A Product Category Rule A, IBU, 2019, Part A,
Calculation Rules for the Life Cycle Assessment and Requirements on the Project Report. v.1.8. IBU, 2019

EN 15942
DS/EN 15942:2011 – ” Sustainability of construction works – Environmental product declarations – Communication format business-to-business”

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

ISO 14040
DS/EN ISO 14040:2008 – ” Environmental management – Life cycle assessment – Principles and framework”

ISO 14044
DS/EN ISO 14044:2008 – ” Environmental management – Life cycle assessment – Requirements and guidelines”

Troldtekt general website
https://www.troldtekt.com/

Troldtekt products
https://www.troldtekt.com/products/

Troldtekt Plus products
https://www.troldtekt.com/products/product-range/troldtekt-plus

Troldtekt sustainability measures
https://www.troldtekt.com/product-advantages/documented-sustainability-initiatives/

"BBSR-Nutzungsdauertabelle"
https://www.nachhaltigesbauen.de/austausch/nutzungsdauern-von-bauteilen/

Parent EPDs to be used in conjunction with this EPD
MD-24138-EN
MD-24139-EN
MD-24140-EN
MD-24141-EN.