epd-norway
Global Program Operator

Environmental Product Declaration

In accordance with ISO14025:2006 and EN15804:2012+A2:2019

[Product name]

Owner of the declaration:
[Owner]

Product name:
[text]

Declared unit:
[text]

Product category /PCR:
[text]

Program holder and publisher:
The Norwegian EPD foundation

Declaration number:
[text]

Registration number:
[text]

Issue date: [text]

Valid to: [text]

The Norwegian
EPD Foundation

General information

Product:
[Produkt Navn]

Program operator:
The Norwegian EPD Foundation
Post Box 5250 Majorstuen, 0303 Oslo, Norway
Tlf: +47 23 08 80 00
e-mail: post@epd-norge.no

Declaration number:
[From EPD-Norge]

This declaration is based on Product Category Rules:
[PCR]

Statement of liability:
The owner of the declaration shall be liable for the underlying information and evidence. EPD Norway shall not be liable with respect to manufacturer, life cycle assessment data and evidences.

Declared unit:
[Mandatory]

Declared unit with option:
[Text]

Functional unit:
[Text]

Verification:
Independent verification of the declaration and data, according to ISO14025:2010

internal ☐ external ☐

Sign

[name]
Independent verifier approved by EPD Norway

Owner of the declaration:
[name of EPD owner]
Contact person: [Text]
Phone: [Text]
e-mail: [Text]

Manufacturer:
[name]
[Adress]
Phone: [Text]
e-mail: [Text]

Place of production:
[adress]

Management system:
[ISO 14001 fill in]

Organisation no:
[123456789MVA fill in]

Issue date:
[xx.xx.xxxx]

Valid to:
[xx.xx.xxxx]

Year of study:
[xxxx]

Comparability:
EPD of construction products may not be able to compare if they do not comply with EN 15804 and are seen in a building context.

The EPD has been worked out by:
[name]

Approved

Manager of EPD Norway

Product

Product description:
[Text]

Product specification:
[Text]

Materials	Value	%

Technical data:
[Text]

Market:
[Text]

Reference service life, product:
[Text]

Reference service life, building:
[Text]

Additional technical information
[Text]

LCA: Calculation rules

Declared unit:
[Text]

Cut-off criteria:
[Text]

Allocation:
[Text]

Data quality:
[Text]

System boundaries (X=included, MND=module not declared, MNR=module not relevant)

Product stage			Assembly stage		Use stage							End of life stage				Benefits & loads beyond system boundary
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

System boundary:
[Text]

Placeholder for system boundaries figure for the EPD

LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

[Text]

Transport from production place to assembly/user (A4)

Transport from production place to assembly/user (A4)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy consumption	Unit	Value
Truck					
Railway					
Boat					
Add/remove rows acc. to relevance					

[Text]

Assembly (A5)

	Unit	Value
Water consumption	m3	
Electricity consumption	kWh	
Other energy carriers	MJ	
Material loss	Kg	
Output materials from waste treatment	Kg	
Add/remove rows acc. to relevance		

[Text]

Use (B1)

	Unit	Value
Add/remove rows acc. to relevance		

[Text]

Maintenance (B2)/Repair (B3)

	Unit	Value
Water consumption	m3	
Electricity consumption	kWh	
Add/remove rows acc. to relevance		

[Text]

Replacement (B4)/Refurbishment (B5)

	Unit	Value
Water consumption	m3	
Electricity consumption	kWh	

Add/remove rows acc. to relevance		

[Text]

Operational energy (B6) and water consumption (B7)

	Unit	Value
Water consumption	m3	
Electricity consumption	kWh	
Add/remove rows acc. to relevance		

[Text]

End of Life (C1, C3, C4)

	Unit	Value
Hazardous waste disposed	kg	
Collected as mixed construction waste	kg	
Reuse	kg	
Recycling	kg	
Energy recovery	kg	
To landfill	kg	
Add/remove rows acc. to relevance		

[Text]

Transport to waste processing (C2)

Transport from production place to assembly/user (C2)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy consumption	Unit	Value
Truck					
Railway					
Boat					
Add/remove rows acc. to relevance					

[Text]

Benefits and loads beyond the system boundaries (D)

Benefits and loads beyond the system boundaries (D)	Unit	Value
Substitution of electricity, in Norway	MJ	
Substitution of thermal energy, district heating, in Norway	MJ	
Substitution of primary steel with net scrap	kg	
Add/remove rows acc. to relevance		

[Text]

LCA: Results

[Text]

Core environmental impact indicators

Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
GWP - total	kg CO2 eq							
GWP - fossil	kg CO2 eq							
GWP - biogenic	kg CO2 eq							
GWP - luluc	kg CO2 eq							
ODP	kg CFC11 eq							
AP	molc H+ eq							
EP- freshwater	kg P eq							
EP -marine	kg N eq							
EP - terrestrial	molc N eq							
POCP	kg NMVOC eq							
ADP-M&M[2]	kg Sb-Eq							
ADP-fossil[2]	MJ							
WDP[2]	m³							

GWP-total: *Global Warming Potential;* ***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:*** *Depletion potential of the stratospheric ozone layer;* ***AP:*** *Acidification potential, Accumulated Exceedance;* ***EP-freshwater:*** *Eutrophication potential, fraction of nutrients reaching freshwater end compartment; See "additional Norwegian requirements" for indicator given as PO4 eq.* ***EP-marine:*** *Eutrophication potential, fraction of nutrients reaching freshwater end compartment;* ***EP-terrestrial:*** *Eutrophication potential, Accumulated Exceedance;* ***POCP****: Formation potential of tropospheric ozone;* ***ADP-M&M****: Abiotic depletion potential for non-fossil resources (minerals and metals);* ***ADP-fossil:*** *Abiotic depletion potential for fossil resources;* ***WDP:*** *Water deprivation potential, deprivation weighted water consumption*

Reading example: 9,0 E-03 = 9,0*10-3 = 0,009

Additional environmental impact indicators

Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
PM	Disease incidence							
IRP[1]	kBq U235 eq.							
ETP-fw[2]	CTUe							
HTP-c[2]	CTUh							
HTP-nc[2]	CTUh							
SQP[2]	Dimensionless							

PM: *Particulate matter emissions;* ***IRP:*** *Ionising radiation, human health;* ***ETP-fw:*** *Ecotoxicity (freshwater);* ***ETP-c:*** *Human toxicity, cancer effects;* ***HTP-nc:*** *Human toxicity, non-cancer effects;* ***SQP:*** *Land use related impacts / soil quality*

[1] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

[2] The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

Resource use

Parameter	Unit	A1-A3	A4	C1	C2	C3	C4	D
RPEE	MJ							
RPEM	MJ							
PERT	MJ							
NRPE	MJ							
NRPM	MJ							
PENRT	MJ							
SM	kg							
RSF	MJ							
NRSF	MJ							
W	m^3							

RPEE *Renewable primary energy resources used as energy carrier;* ***RPEM*** *Renewable primary energy resources used as raw materials;* ***PERT*** *Total use of renewable primary energy resources;* ***NRPE*** *Nonrenewable primary energy resources used as energy carrier;* ***NRPM*** *Nonrenewable primary energy resources used as materials;* ***PENRT*** *Total use of non-renewable primary energy resources;* ***SM*** *Use of secondary materials;* ***RSF*** *Use of renewable secondary fuels;* ***NRSF*** *Use of non-renewable secondary fuels;* ***W*** *Use of net fresh water.*

End of life – Waste

Parameter	Unit	A1-A3	A4	C1	C2	C3	C4	D
HW	kg							
NHW	kg							
RW	kg							

HW *Hazardous waste disposed;* ***NHW*** *Non-hazardous waste disposed;* ***RW*** *Radioactive waste disposed.*

End of life – output flow

Parameter	Unit	A1-A3	A4	C1	C2	C3	C4	D
CR	kg							
MR	kg							
MER	kg							
EEE	MJ							
ETE	MJ							

CR *Components for reuse;* ***MR*** *Materials for recycling;* ***MER*** *Materials for energy recovery;* ***EEE*** *Exported electric energy;* ***ETE*** *Exported thermal energy.*

Information describing the biogenic carbon content at the factory gate

Biogenic carbon content	Unit	Value
Biogenic carbon content in product	kg C	
Biogenic carbon content in the accompanying packaging	kg C	

[Text]

Additional requirements

Location based electricity mix from the use of electricity in manufacturing

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing prosess (foreground/core) per functional unit.

National electricity grid	Data source	Foreground / core [kWh]	GWP_{total} [kg CO2 -eq/kWh]	SUM [kg CO2 -eq]
[name of the dataset used to model electricity]				

Guarantees of origin from the use of electricity in the manufacturing phase

Where guarantees of origin is applied instead of national production mix – the electricity for the manufacturing process (A3) shall be stated clearly in the EPD per functional unit.

Electricity source	Foreground / core [kWh]	GWP_{total} [kg CO2 -eq/kWh]	SUM [kgCO2 -eq]
Guarantee of origin electricity used in the foreground			
Residual mix electricity used in the foreground			

The guarantee of origin utilized in this EPD is provided by *[state name, validity period and information about the GO used].* The residual mix is calculated using the following methodology *[describe/give reference e.g. AIB]*

Additional environmental impact indicators required for construction products

In order to increase the transparency of biogenic carbon contribution to climate impact, the indicator GWP-IOBC is required as it declares climate impacts calculated according to the principle of instantaneous oxidation. GWP-IOBC is also referred to as GWP-GHG in context to Swedish public procurement legislation.

Parameter	Unit	A1-A3	A4	C1	C2	C3	C4	D
GWP-IOBC	kg							

GWP-IOBC *Global warming potential calculated according to the principle of instantaneous oxidation.*

Hazardous substances

The declaration is based upon reference to threshold values and/or test results and/or material safety data sheets provided to EPD verifiers. Documentation available upon request to EPD owner.

- ☐ The product contains no substances given by the REACH Candidate list.
- ☐ The product contains substances given by the REACH Candidate list that are less than 0,1 % by weight.
- ☐ The product contains dangerous substances, more then 0,1% by weight, given by the REACH Candidate List, see table.
- ☐ The product contains no substances given by the REACH Candidate list.
- ☐ The product is classified as hazardous waste, see table.

Name	CAS no.	Amount

Indoor environment

The product meets the requirements for low emissions.

[Text]

Carbon footprint

While a carbon footprint analysis has not been conducted for the product separately, the results section does include an evaluation of Global Warming Potential (GWP) with such an analysis. The GWP total results presented in this EPD document represents the carbon footprint of the product studied

[Text]

Bibliography

ISO 14025:2010	Environmental labels and declarations - Type III environmental declarations - Principles and procedures
ISO 14044:2006	Environmental management - Life cycle assessment - Requirements and guidelines
EN 15804:2012+A2:2019	Sustainability of construction works - Environmental product declaration - Core rules for the product category of construction products
ISO 21930:2017	Sustainability in building construction - Environmental declaration of building products

[Text]

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