

Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

OFFECCT MEET collection



OFFECCT

Flol: l:

Flokk AS

OFFECCT MEET collection

Owner of the declaration:

Declared unit:

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core

NPCR 026:2022 Part B for Furniture

Program operator:

The Norwegian EPD Foundation

Declaration number:

NEPD-5183-4527-EN

Registration number:

NEPD-5183-4527-EN

Issue date: 18.10.2023

Valid to: 18.10.2028

EPD Software:

LCA.no EPD generator ID: 98315

The Norwegian EPD Foundation



General information

Product

OFFECCT MEET collection

Program operator:

Post Box 5250 Majorstuen, 0303 Oslo, Norway The Norwegian EPD Foundation Phone: +47 23 08 80 00 web: post@epd-norge.no

Declaration number: NEPD-5183-4527-EN

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012 + A2:2019 serves as core PCR NPCR 026:2022 Part B for Furniture

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 information, life cycle assessment data and evidences.

Declared unit:

1 pcs OFFECCT MEET collection

Declared unit (cradle to gate) with option:

A1-A3,A4,A5,B2,B3,B4,C1,C2,C3,C4,D

Functional unit:

OFFECCT MEET 1-seater with O2asis (Gabriel/Cura - Including Packaging

General information on verification of EPD from EPD tools:

Independent verification of data, other environmental information and the declaration according to ISO 14025:2010, § 8.1.3 and § 8.1.4. Verification of each EPD is made according to EPD-Norway's guidelines for verification and approval requiring that tools are i integrated into the company's environmental management system, ii the procedures for use of the EPD tool are approved by EPD-Norway, and iii the process is reviewed annually by an independent third party verifier. See Appendix G of EPD-Norway's General Programme Instructions for further information on EPD tools

Verification of EPD tool:

Independent third party verification of the EPD tool, background data and test-EPD in accordance with EPDNorway's procedures and guidelines for verification and approval of EPD tools.

Third party verifier:

Elisabet Amat, GREENIZE projects (no signature required

Owner of the declaration:

Contact person: Atle Thiis-Messel Phone: 0047 98 25 68 30 e-mail: atle.messel@flokk.com

Manufacturer:

Flokk AS Drammensveien 145, 0277 Oslo, Norway

Place of production:

Flokk - Turek ul. Górnicza 8 62-700 Turek, Poland

Management system:

ISO 14001, ISO 9001, ISO 50001(Norway, Sweden

Organisation no:

No 928 902 749

Issue date: 18.10.2023

Valid to: 18.10.2028

Year of study:

2022

Comparability:

EPD of construction products may not be comparable if they not comply with EN 15804 and seen in a building context.

Development and verification of EPD:

The declaration is created using EPD tool lca.tools ver EPD2022.03, developed by LCA.no. The EPD tool is integrated in the company's management system, and has been approved by EPD Norway.

Developer of EPD: Damian Bakowski

Reviewer of company-specific input data and EPD: Monika Kuczynska

Approved:

Håkon Hauan, CEO EPD-Norge



Product

Product description:

"When we work on projects aimed at the environment between office and residential space, we always raise our gaze to look at the surroundings. We don't want to see only the product. We want to see and feel how this product will actually work in a space so it can be of full service to the people who will use it.

We wanted to design Meet so that its functions feature Offecct's main areas, the sustainability aspect and the sound absorbing qualities of their products, the importance to inject life through plants in indoor environments and Offecct's craftsmanship in working with wood and fabrics", says Robin Rizzini.

Product specification

The model studied in detail in this declaration is the OFFECCT MEET 1-seater (upholstered in the Cura fabric from Gabriel) with O2asis - including packaging. The key environmental indicators for the other models of the OFFECCT MEET collecton are presented on a table page 12 of this declaration.

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Adhesive	1,00	1,89	0,01	0,73
Chemical	0,26	0,48	0,00	0,00
Glue for wood	0,04	0,08	0,00	1,21
Metal - Steel	3,44	6,49	0,01	0,27
Metal - Zinc	0,01	0,01	0,00	0,00
Paint, water-based	0,06	0,10	0,00	0,00
Plastic - Polyethylene (LDPE)	1,01	1,90	0,00	0,00
Plastic - Polypropylene (PP)	0,01	0,02	0,00	0,00
Plastic - Polyurethane (PUR)	5,51	10,39	0,00	0,00
Textile - Polyester (PE)	2,07	3,91	1,13	54,68
Wood - Chipboard	24,64	46,50	0,00	0,00
Wood - Medium Density Fibreboard (MDF)	6,52	12,31	0,00	0,00
Wood - Plywood	5,98	11,29	0,00	0,00
Wood - Solid beech/birch	0,88	1,67	0,00	0,00
Wood - Solid oak	1,57	2,96	0,00	0,00
Total	52,99		1,15	

Packaging	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Packaging - Cardboard	3,69	50,61	0,00	0,00
Packaging - Paper	0,01	0,07	0,00	34,31
Packaging - Plastic	0,30	4,11	0,00	0,00
Packaging - Plastic straps	0,02	0,33	0,00	0,00
Recycled cardboard	3,28	44,88	3,28	100,00
Total incl. packaging	60,29		4,43	

Technical data:

Wooden frame with cut foam. Fixed upholstery in fabric. Table and flower pot in white pigmented oak veneer. Fully upholstered corner divider, available in right and left versions. Base in black stained MDF.

Market:

Worldwide

Reference service life, product

5 years

Reference service life, building

LCA: Calculation rules

Declared unit:

1 pcs OFFECCT MEET collection

Cut-off criteria:

All major raw materials and all the essential energy is included. The production processes for raw materials and energy flows with very small amounts (less than 1%) are not included. These cut-off criteria do not apply for hazardous materials and substances.

Allocation:

The allocation is made in accordance with the provisions of EN 15804. Incoming energy and water and waste production in-house is allocated equally among all products through mass allocation. Effects of primary production of recycled materials is allocated to the main product in which the material was used. The recycling process and transportation of the material is allocated to this analysis.



Data quality:

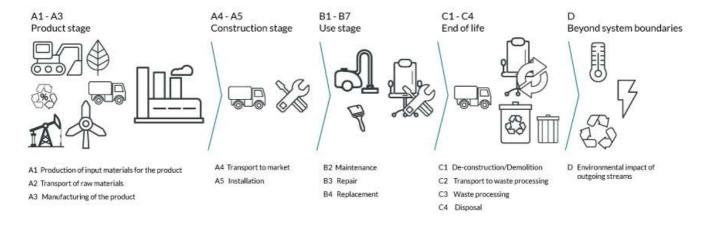
Specific data for the product composition are provided by the manufacturer. They represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on registered EPDs according to EN 15804, Ostfold Research databases, ecoinvent and other LCA databases. The data quality of the raw materials in A1 is presented in the table below.

Materials	Source	Data quality	Year
Chemical	ecoinvent 3.6	Database	2019
Glue for wood	ecoinvent 3.6	Database	2019
Metal - Steel	ecoinvent 3.6	Database	2019
Metal - Zinc	ecoinvent 3.6	Database	2019
Packaging - Paper	ecoinvent 3.6	Database	2019
Packaging - Plastic	ecoinvent 3.6	Database	2019
Packaging - Plastic straps	ecoinvent 3.6	Database	2019
Paint, water-based	ecoinvent 3.6	Database	2019
Plastic - Polyethylene (LDPE)	ecoinvent 3.6	Database	2019
Plastic - Polypropylene (PP)	ecoinvent 3.6	Database	2019
Plastic - Polyurethane (PUR)	ecoinvent 3.6	Database	2019
Textile - Polyester (PE)	ecoinvent 3.6	Database	2019
Wood - Chipboard	ecoinvent 3.6	Database	2019
Wood - Medium Density Fibreboard (MDF)	ecoinvent 3.6	Database	2019
Packaging - Cardboard	Modified ecoinvent 3.6	Database	2019
Recycled cardboard	Modified ecoinvent 3.6	Database	2019
Textile - Polyester (PE)	Modified ecoinvent 3.6	Database	2019
Wood - Plywood	modified ecoinvent 3.6	Database	2019
Wood - Solid beech/birch	modified ecoinvent 3.6	Database	2019
Wood - Solid oak	modified ecoinvent 3.6	Database	2019
Adhesive	Modified ecoinvent 3.6	Database/Supplier	2019

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

Р	roduct stag	ge		uction on stage		Use stage End of life stage						Beyond the system boundaries				
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	В3	B4	B5	В6	В7	C1	C2	C3	C4	D
Χ	Χ	Χ	Χ	Χ	MND	X	Χ	Χ	MND	MND	MND	Χ	Χ	X	Χ	X

System boundary:



Additional technical information:



LCA: Scenarios and additional technical information

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

Transport from production place to user (A4)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, over 32 tonnes, EURO 5 (km)	53,3 %	1000	0,023	l/tkm	23,00
Assembly (A5)	Unit	Value			
Waste, packaging, cardboard, 100 % recycled, to average treatment (kg)	kg	3,28			
Waste, packaging, corrugated board box, 0 % recycled, to average treatment (kg)	kg	3,69			
Waste, packaging, paper printed, to average treatment (kg)	kg	0,01			
Waste, packaging, PET straps, to average treatment - A5 (kg)	kg	0,02			
Waste, packaging, plastic film (LDPE), to average treatment - A5 (kg)	kg	0,30			
Maintenance (B2)	Unit	Value			
Electricity, European average (kWh)	kWh/DU	10,53			
Electricity, World average (kWh)	kWh/DU	1,17			
Water, tap water (m3)	m3/DU	0,78			
Repair (B3)	Unit	Value			
Electricity, European average (kWh)	kWh/DU	0,50			
Electricity, World average (kWh)	kWh/DU	0,06			
3 \ \ /		·			Value
Transport to waste processing (C2)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	(Liter/tonne)
Truck, 16-32 tonnes, EURO 5 (km)	36,7 %	85	0,044	l/tkm	3,74
Waste processing (C3)	Unit	Value			
Waste processing (cs) Waste treatment per kg Hazardous waste,					
incineration (kg)	kg	1,30			
Waste treatment per kg Non-hazardous waste, incineration with fly ash extraction - C3 (kg)	kg	0,01			
Waste treatment per kg Polyethylene, PE, incineration with fly ash extraction - C3 (kg)	kg	1,01			
Waste treatment per kg Polypropylene (PP), incineration with fly ash extraction - C3 (kg)	kg	0,01			
Waste treatment per kg Polyurethane (PU), incineration (kg)	kg	5,51			
Waste treatment per kg Scrap steel, incineration with fly ash extraction (kg)	kg	3,44			
Waste treatment per kg Textile, incineration with fly ash extraction (kg)	kg	2,07			
Waste treatment per kg Wood, incineration with fly ash extraction (kg)	kg	39,60			
Waste, materials to recycling (kg)	kg	1,17			
Disposal (C4)	Unit	Value			
Landfilling of ashes and residues from incineration of Scrap steel (kg)	kg	2,27			
Landfilling of ashes from incineration of Hazardous waste, from incineration (kg)	kg	0,24			
Landfilling of ashes from incineration of Non- hazardous waste, process per kg ashes and residues - C4 (kg)	kg	0,00			
Landfilling of ashes from incineration of Polyethylene, PE, process per kg ashes and residues - C4 (kg)	kg	0,04			
Landfilling of ashes from incineration of Polypropylene, PP, process per kg ashes and residues - C4 (kg)	kg	0,00			
Landfilling of ashes from incineration of Polyurethane (PU), process per kg ashes and residues - C4 (kg)	kg	0,21			
Landfilling of ashes from incineration of Textile, soiled, process per kg ashes and residues (kg)	kg	0,10			
Landfilling of ashes from incineration of Wood, process per kg ashes and residues (kg)	kg	0,46			



Benefits and loads beyond the system boundaries (D)	Unit	Value		
Substitution of electricity, in Norway (MJ)	MJ	39,13		
Substitution of primary steel with net scrap (kg)	kg	0,53		
Substitution of thermal energy, district heating, in Norway (MJ)	MJ	592,07		



LCA: Results

The LCA results are presented below for the declared unit defined on page 2 of the EPD document.

Environme	ental impact								
	Indicator		Unit		A1-A3	A4	A5	B2	В3
	GWP-total		kg CO ₂ -e	eq	1,91E+01	5,48E+00	1,20E+01	5,67E+00	2,54E-01
	GWP-fossil		kg CO ₂ -ec		9,60E+01	5,48E+00	1,39E-01	5,62E+00	2,52E-01
	GWP-biogenic		kg CO ₂ -e	eq	-7,71E+01	2,25E-03	1,18E+01	3,61E-02	1,62E-03
	GWP-luluc		kg CO ₂ -e	eq	2,32E-01	1,60E-03	3,93E-05	1,27E-02	5,74E-04
Ö	ODP		kg CFC11	-eq	1,18E-05	1,27E-06	2,54E-08	4,39E-07	1,95E-08
É	АР		mol H+ -	eq	5,86E-01	2,30E-02	5,66E-04	3,22E-02	1,44E-03
-	EP-FreshWater		kg P -ec	l	5,63E-03	4,18E-05	9,79E-07	5,47E-04	2,47E-05
-	EP-Marine		kg N -ed	1	1,31E-01	6,93E-03	2,06E-04	4,31E-03	1,91E-04
*	EP-Terrestial		mol N -e	q	1,37E+00	7,66E-02	2,03E-03	5,22E-02	2,32E-03
	POCP		kg NMVOC	-eq	4,68E-01	2,46E-02	5,87E-04	1,35E-02	5,94E-04
	ADP-minerals&metals ¹		kg Sb -e	9	3,42E-03	9,36E-05	2,88E-06	4,34E-05	1,69E-06
	ADP-fossil ¹		МЈ		1,69E+03	8,52E+01	1,68E+00	1,08E+02	4,87E+00
%	WDP ¹		m^3		1,89E+04	6,54E+01	2,38E+00	1,51E+03	6,70E+01
	Indicator		Unit	B4	C1	C2	C3	C4	D
	GWP-total		kg CO ₂ -eq	0	0	8,55E-01	9,09E+01	1,71E-01	-4,14E+00
	GWP-fossil		kg CO ₂ -eq	0	0	8,54E-01	2,13E+01	1,71E-01	-4,02E+00
	GWP-biogenic		kg CO ₂ -eq	0	0	3,48E-04	6,96E+01	9,44E-05	-7,41E-03
	GWP-luluc		kg CO ₂ -eq	0	0	2,99E-04	8,92E-04	2,38E-05	-1,19E-01
Ö	ODP	ı	kg CFC11 -eq	0	0	1,95E-07	4,47E-07	1,70E-08	-2,50E-01
Œ	АР		mol H+ -eq	0	0	3,49E-03	2,39E-02	5,25E-04	-3,12E-02
	EP-FreshWater		kg P -eq	0	0	6,71E-06	8,22E-05	1,81E-06	-3,41E-04
	EP-Marine		kg N -eq	0	0	1,04E-03	1,13E-02	1,60E-04	-9,85E-03
	EP-Terrestial		mol N -eq	0	0	1,15E-02	1,13E-01	1,83E-03	-1,06E-01
	POCP	k	g NMVOC -eq	0	0	3,51E-03	2,76E-02	5,13E-04	-3,05E-02
#\$D	ADP-minerals&metals ¹		kg Sb -eq	0	0	2,31E-05	1,48E-05	8,29E-07	-4,43E-05
	ADP-fossil ¹		MJ	0	0	1,29E+01	2,23E+01	1,42E+00	-5,40E+01
<u>%</u>	WDP ¹		m ³	0	0	1,23E+01	7,24E+01	1,76E+01	-5,81E+02

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment: EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

Remarks to environmental impacts

[&]quot;Reading example: 9,0 E-03 = 9,0*10-3 = 0,009"

^{*}INA Indicator Not Assessed

^{1.} 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



Additional e	nvironmental impa	ct indicators						
	Indicator	Unit	Unit		A4	A5	B2	В3
	PM	Disease incidence	Disease incidence		4,82E-07	8,45E-09	1,14E-07	4,75E-09
	IRP ²	kgBq U235 -eq		5,13E+00	3,72E-01	7,23E-03	8,90E-01	4,03E-02
	ETP-fw ¹	CTUe		4,13E+03	6,23E+01	2,21E+00	8,66E+01	3,84E+00
26. <u>*</u>	HTP-c ¹	CTUh		6,14E-07	0,00E+00	6,50E-11	2,79E-09	9,70E-11
45 E	HTP-nc ¹	CTUh		2,02E-06	6,03E-08	2,74E-09	8,81E-08	3,37E-09
	SQP ¹	dimensionless		4,60E+03	9,78E+01	1,24E+00	2,53E+01	1,13E+00
I	ndicator	Unit	B4	C1	C2	C3	C4	D
	PM	Disease incidence	0	0	6,15E-08	1,79E-07	6,34E-09	-1,76E-06
	IRP ²	kgBq U235 -eq	0	0	5,63E-02	7,21E-02	6,74E-03	-3,11E-01
6	ETP-fw ¹	CTUe	0	0	9,49E+00	1,06E+02	2,44E+00	-3,00E+02
40.* *** <u>\$</u>	HTP-c ¹	CTUh	0	0	0,00E+00	5,36E-09	1,22E-10	-7,71E-09
8° <u>B</u>	HTP-nc ¹	CTUh	0	0	1,03E-08	1,32E-07	4,38E-09	-1,95E-07
&	SOP ¹	dimensionless	0	0	8,88E+00	6,03E+00	3,74E+00	-3,29E+02

PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)

[&]quot;Reading example: 9,0 E-03 = 9,0*10-3 = 0,009"

^{*}INA Indicator Not Assessed

^{1.} 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

^{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.

Flol: I:

Resource use									
	Indicator		U	nit	A1-A3	A4	A5	B2	В3
*F	PERE		MJ		6,35E+02	1,07E+00	2,87E-02	1,99E+01	9,05E-01
	PERM		МЈ		4,65E+02	0,00E+00	-7,80E+01	0,00E+00	0,00E+00
್ಕ	PERT		N	MJ	1,10E+03	1,07E+00	-7,80E+01	1,99E+01	9,05E-01
A	PENRE		N	ΜJ	1,43E+03	8,52E+01	1,68E+00	1,08E+02	4,88E+00
Å3	PENRM		N	ΜJ	2,75E+02	0,00E+00	-1,33E+01	0,00E+00	0,00E+00
ÍÁ	PENRT		N	MJ	1,70E+03	8,52E+01	-1,16E+01	1,08E+02	4,88E+00
	SM		k	кg	4,43E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	RSF		N	MJ	2,35E+00	3,75E-02	9,32E-04	1,38E+00	6,27E-02
	NRSF		N	MJ	8,56E+00	1,26E-01	3,74E-03	3,70E-01	1,51E-02
&	FW	m ³		1,81E+00	9,71E-03	8,01E-04	8,69E-01	3,99E-03	
				TI -	1,012:00	-,	0,010	-,	-,
Indi	icator	U	Jnit	В4	C1	C2	C3	C4	D
াndi ুন উ	icator PERE								
		ı	Jnit	B4	C1	C2	C3	C4	D
Ç.	PERE	1	Jnit MJ	B4 0	C1 0	C2 1,82E-01	C3 2,48E+00	C4 9,26E-02	D -3,04E+02
T.	PERE PERM	1	Jnit MJ	0 0	C1 0	C2 1,82E-01 0,00E+00	C3 2,48E+00 -3,79E+02	C4 9,26E-02 0,00E+00	D -3,04E+02 0,00E+00
₹.	PERE PERM PERT	1	Jnit MJ MJ MJ	0 0 0	C1 0 0	C2 1,82E-01 0,00E+00 1,82E-01	C3 2,48E+00 -3,79E+02 -3,77E+02	C4 9,26E-02 0,00E+00 9,25E-02	D -3,04E+02 0,00E+00 -3,04E+02
E E F	PERE PERM PERT PENRE	1	MJ MJ MJ	0 0 0 0	0 0 0 0	C2 1,82E-01 0,00E+00 1,82E-01 1,29E+01	C3 2,48E+00 -3,79E+02 -3,77E+02 2,23E+01	C4 9,26E-02 0,00E+00 9,25E-02 1,42E+00	D -3,04E+02 0,00E+00 -3,04E+02 -5,40E+01
E I I I	PERE PERM PERT PENRE PENRM	1	MJ MJ MJ MJ MJ MJ	B4 0 0 0 0 0	0 0 0 0 0	C2 1,82E-01 0,00E+00 1,82E-01 1,29E+01 0,00E+00	C3 2,48E+00 -3,79E+02 -3,77E+02 2,23E+01 -2,62E+02	C4 9,26E-02 0,00E+00 9,25E-02 1,42E+00 0,00E+00	D -3,04E+02 0,00E+00 -3,04E+02 -5,40E+01 0,00E+00
	PERE PERM PERT PENRE PENRM PENRT		MJ MJ MJ MJ MJ MJ MJ	B4 0 0 0 0 0 0	0 0 0 0 0 0	C2 1,82E-01 0,00E+00 1,82E-01 1,29E+01 0,00E+00 1,29E+01	C3 2,48E+00 -3,79E+02 -3,77E+02 2,23E+01 -2,62E+02 -2,39E+02	C4 9,26E-02 0,00E+00 9,25E-02 1,42E+00 0,00E+00 1,42E+00	D -3,04E+02 0,00E+00 -3,04E+02 -5,40E+01 0,00E+00 -5,40E+01
	PERE PERM PERT PENRE PENRM PENRT SM		MJ MJ MJ MJ MJ MJ kg	B4 0 0 0 0 0 0	0 0 0 0 0 0 0	C2 1,82E-01 0,00E+00 1,82E-01 1,29E+01 0,00E+00 1,29E+01 0,00E+00	C3 2,48E+00 -3,79E+02 -3,77E+02 2,23E+01 -2,62E+02 -2,39E+02 0,00E+00	C4 9,26E-02 0,00E+00 9,25E-02 1,42E+00 0,00E+00 1,42E+00 0,00E+00	D -3,04E+02 0,00E+00 -3,04E+02 -5,40E+01 0,00E+00 -5,40E+01 0,00E+00

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 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 materials; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water

"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009" *INA Indicator Not Assessed

Flol: l:

End of life - Waste									
	Indicator			Unit		A4	A5	B2	В3
	HWD	HWD		kg		4,67E-03	0,00E+00	1,87E-02	8,39E-04
Ū	NHWD		k	g	1,91E+01	7,41E+00	7,30E+00	4,24E-01	1,73E-02
®	RWD		k	g	5,05E-03	5,82E-04	0,00E+00	7,21E-04	3,26E-05
In	dicator		Unit	B4	C1	C2	C3	C4	D
	HWD		kg	0	0	6,57E-04	0,00E+00	2,78E+00	-5,36E-03
Ū	NHWD		kg	0	0	6,16E-01	1,30E+00	5,61E-01	-1,40E+00
®	RWD		kg	0	0	8,78E-05	0,00E+00	5,42E-06	-2,55E-04

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed

"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009" *INA Indicator Not Assessed

End of life - Output flow								
Ind	icator	Un	Unit		A4	A5	B2	В3
®	CRU	kç	kg		0,00E+00	0,00E+00	0,00E+00	0,00E+00
&▷	MFR	kç	kg		0,00E+00	6,65E+00	0,00E+00	0,00E+00
DF	MER	kç		5,33E-04	0,00E+00	3,89E-04	0,00E+00	0,00E+00
5D	EEE	М	J	4,62E-01	0,00E+00	3,99E-01	0,00E+00	0,00E+00
DØ	EET	М	J	6,98E+00	0,00E+00	6,04E+00	0,00E+00	0,00E+00
Indicato	or	Unit	B4	C1	C2	C3	C4	D
∅>	CRU	kg	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
\$>	MFR	kg	0	0	0,00E+00	1,17E+00	0,00E+00	0,00E+00
DV	MER	kg	0	0	0,00E+00	5,29E+01	0,00E+00	0,00E+00
50	EEE	МЈ	0	0	0,00E+00	3,88E+01	0,00E+00	0,00E+00
	EET	MJ	0	0	0,00E+00	5,87E+02	0,00E+00	0,00E+00

CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported energy electrical; EET = Exported energy thermal

"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009" *INA Indicator Not Assessed

Biogenic Carbon Content								
Indicator	Unit	At the factory gate						
Biogenic carbon content in product	kg C	1,81E+01						
Biogenic carbon content in accompanying packaging	kg C	3,23E+00						

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO2



Additional requirements

Greenhouse gas emissions from the use of electricity in the manufacturing phase

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 process (A3).

Electricity mix	Data source	Amount	Unit
Electricity, high voltage, hydro (kWh) - PL	ecoinvent 3.6	4,02	g CO2-eg/kWh

Dangerous substances

The product contains no substances given by the REACH Candidate list.

Indoor environment

Additional Environmental Information

Key Environmental Indicators

Key environmental indicators	Unit	A1-A3	A4	A1-C4	A1-D
GWPtotal	kg CO ₂ -eq	19,12	5,48	134,41	130,27
Total energy consumption	MJ	2072,72	86,47	2336,35	1961,37
Amount of recycled materials	%	7,34			

Additional environmental impact indicators required in NPCR Part A for construction products								
Indicator	Unit	Unit		A4	A5	B2	В3	
GWPIOBC	kg CO ₂ -eq	kg CO ₂ -eq		5,48E+00	8,35E-02	5,99E+00	2,69E-01	
Indicator	Unit	B4	C1	C2	C3	C4	D	
GWPIOBC	kg CO ₂ -eq	0	0	8,55E-01	2,47E+01	1,79E-01	-4,38E+00	

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

Variants and Options

Key environmental indicators (A1-A3) for variants of this EPD							
Variants	Weight (kg)	GWPtotal (kg CO ₂ - eq)	Total energy consumption (MJ)	Amount of recycled materials (%)			
OFFECCT MEET Ottoman (Gabriel/Cura) - No Packaging	40,93	35,86	1624,96	1,93			
OFFECCT MEET Ottoman with armrest (Gabriel/Cura) - No Packaging	48,56	43,78	2038,51	2,75			
OFFECCT MEET Ottoman with O2asis (Gabriel/Cura) - No Packaging	50,30	23,08	1725,32	1,57			
OFFECCT MEET 1-seater with armrest (Gabriel/Cura) - No Packaging	51,28	43,36	2177,87	3,30			
OFFECCT MEET 1-seater with O2asis (Gabriel/Cura) - No Packaging	52,99	22,66	1864,68	2,17			
OFFECCT MEET 1-seater with table (Gabriel/Cura) - No Packaging	70,87	-4,45	2047,47	1,62			
OFFECCT MEET 1-seater with Ottoman (Gabriel/Cura) - No Packaging	69,17	72,74	2952,14	2,80			
OFFECCT MEET 2-seater (Gabriel/Cura) - No Packaging	71,48	70,87	3080,02	2,70			
OFFECCT MEET 1-seater with armerst and table (Gabriel/Cura) - No Packaging	84,73	3,20	2633,71	2,00			
OFFECCT MEET 2-seater with O2asis (Gabriel/Cura) - No Packaging	87,05	95,94	3475,77	2,27			
OFFECCT MEET 1-seater with armrest and Ottoman (Gabriel/Cura) - No Packaging	83,02	80,35	3535,74	2,99			
OFFECTT MEET 2-seater with armrest (Gabriel/Cura) - No Packaging	85,28	78,30	3661,39	2,90			
OFFECCT MEET Table - No Packaging	38,97	-44,38	590,98	0,00			
OFFECCT MEET Corner screen (Gabriel/Cura) - No Packaging	10,96	62,44	963,72	14,60			

Key environmental indicators (A1-A3) for options for this EPD								
Options	Weight (kg)	GWPtotal (kg CO ₂ -eq)	Total energy consumption (MJ)	Amount of recycled materials (%)				
Packaging 1 - (Ottoman / 1-seater / 1-seater with armrest / 1-seater with O2asis / Table)	7,30	-3,54	208,04	44,90				
Packaging 2 - (2-seater / 2-seater with armrest / 2-seater with O2asis / 1-seater with table / 1-seater with Ottoman / 1-seater with armrest and table / 1-seater with armrest and Ottoman)	37,38	-35,29	802,81	7,98				
Packaging 3 - (Corner screen)	23,58	-23,90	413,56	13,22				



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 Environmental product declaration - Core rules for the product category of construction products.

ISO 21930:2017 Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products.

ecoinvent v3, Allocation, cut-off by classification, Swiss Centre of Life Cycle Inventories.

Iversen et al., (2021) eEPD v2021.09 Background information for EPD generator tool system verification, LCA.no Report number: 07.21 Ruud et al., (2023) EPD generator for NPCR026 Part B for Furniture - Background information for EPD generator application and LCA data, LCA.no report number 01.23

NPCR Part A: Construction products and services. Ver. 2.0. March 2021, EPD-Norge.

NPCR 026 Part B for Furniture. Ver. 2.0 March 2022, EPD-Norge.

	and narway	Program operator and publisher	Phone:	+47 23 08 80 00
© epd-norway		The Norwegian EPD Foundation		post@epd-norge.no
	Global Program Operator	Post Box 5250 Majorstuen, 0303 Oslo, Norway	web:	www.epd-norge.no
		Owner of the declaration:	Phone:	0047 98 25 68 30
	lilol:l:	Flokk AS	e-mail:	atle.messel@flokk.com
	1 1 0 10 10	Drammensveien 145,, 0277 Oslo	web:	https://www.flokk.com
		Author of the Life Cycle Assessment	Phone:	+47 916 50 916
	(LCA)	LCA.no AS	e-mail:	post@lca.no
		Dokka 6B, 1671	web:	www.lca.no
		Developer of EPD generator	Phone:	+47 916 50 916
	(LCA [≬]	LCA.no AS	e-mail:	post@lca.no
	no Dokka	Dokka 6B,1671 Kråkerøy	web:	www.lca.no
	ECO PLATFORM	ECO Platform	web:	www.eco-platform.org
	VERIFIED	ECO Portal	web:	ECO Portal