

## Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

### Profim ElliePro



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**Owner of the declaration:** Flokk AS

Product: Profim ElliePro

Declared unit: 1 pcs

**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 -----

**Program operator:** The Norwegian EPD Foundation

Declaration number:

NEPD-8280-7964-EN

**Registration number:** 

NEPD-8280-7964-EN

Issue date: 04.12.2024

Valid to: 04.12.2029

**EPD software:** LCAno EPD generator ID: 696645

The Norwegian EPD Foundation

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### **General information**

#### Product

Profim ElliePro

#### Program operator:

The Norwegian EPD Foundation Post Box 5250 Majorstuen, 0303 Oslo, Norway Phone: +47 977 22 020 web: www.epd-norge.no

#### **Declaration number:**

NEPD-8280-7964-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 Profim ElliePro

#### Declared unit (cradle to gate) with option:

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

#### **Functional unit:**

Profim ElliePro 20 HST – Plastic base, Upholstered in Xtreme/Camira – 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:

Flokk AS 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.

#### **Organisation no:**

No 928 902 749

#### Issue date:

04.12.2024

Valid to:

04.12.2029

Year of study: 2023

#### 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: Damian Piterek

Approved:

Håkon Hauan Managing Director of EPD-Norway

### Product

#### **Product description:**

Most homely office chair. The designers from the ITO Design studio have combined the comfort of a home chair with the ergonomics and functionality of an office piece of furniture. As a result, the Ellie Pro armchair will work well in any interior design project, adding both subtlety and softness as well as modernity to spaces.

#### **Product specification**

The model studied in detail in this declaration is the Profim ElliePro 20 HST with aluminium 4legs base and low backrest upholstered in Xtreme fabric from Camira including small carton box packaging (not fully assembled product). The key environmental indicators for the other models and options of the Profim ElliePro are presented on a table page 12 of this declaration.

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Plastic - Acrylonitrile butadiene styrene (ABS)	0,06	0,36	0,00	0,00
Plastic - Nylon (PA)	4,12	24,30	4,09	99,32
Plastic - Polyamide	0,05	0,29	0,00	0,00
Plastic - Polyoxymethylene (POM)	0,11	0,65	0,00	0,00
Plastic - Polypropylene (PP)	0,35	2,09	0,00	0,00
Plastic - Polyurethane (PUR)	3,00	17,69	0,00	0,00
Powder coating	0,06	0,32	0,00	0,00
Reinforcement	1,75	10,34	0,00	0,00
Metal - Aluminium	3,15	18,58	3,15	100,00
Metal - Brass	0,01	0,07	0,00	17,71
Metal - Steel	3,27	19,30	0,49	14,98
Others	0,00	0,00	0,00	1,24
Textile - Polyester	1,02	6,01	0,84	82,08
Total	16,96	100,00	8,57	

Packaging	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Packaging - Cardboard	0,03	0,70	0,00	0,00
Packaging - Paper	0,02	0,53	0,01	34,31
Packaging - Plastic	0,13	3,50	0,00	0,00
Packaging - Plastic straps	0,02	0,51	0,00	0,00
Recycled cardboard	3,55	94,75	3,55	100,00
Total incl. packaging	20,70	100,00	12,13	

#### Technical data:

Collection features:

- quick and easy adjustment with the synchro self mechanism (height and tilt adjustment)

- mechanism fully integrated into the seat

- possibility of choosing two-colour upholstery

- several types and colours of bases (four- and five-star bases and metal wire frame or version with wooden legs)

#### Market:

Worldwide

**Reference service life, product** 

5 years

Reference service life, building

### **LCA: Calculation rules**

Declared unit:

1 pcs Profim ElliePro

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.

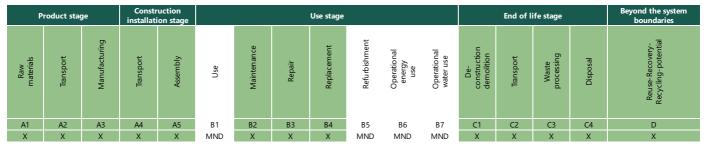
#### Data quality:

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.

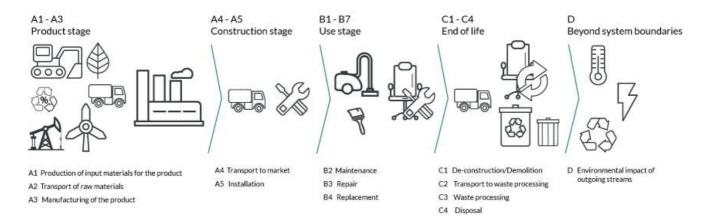
Materials	Source	Data quality	Year
Metal - Aluminium	ecoinvent 3.6	Database	2019
Metal - Brass	ecoinvent 3.6	Database	2019
Metal - Steel	ecoinvent 3.6	Database	2019
Others	ecoinvent 3.6	Database	2019
Packaging - Cardboard	Modified ecoinvent 3.6	Database	2019
Packaging - Paper	ecoinvent 3.6	Database	2019
Packaging - Plastic	ecoinvent 3.6	Database	2019
Packaging - Plastic straps	ecoinvent 3.6	Database	2019
Plastic - Acrylonitrile butadiene styrene (ABS)	ecoinvent 3.6	Database	2019
Plastic - Nylon (PA)	ecoinvent 3.6	Database	2019
Plastic - Nylon (PA)	Modified ecoinvent 3.6	Database	2019
Plastic - Polyamide	Modified ecoinvent 3.6	Database	2019
Plastic - Polyoxymethylene (POM)	ecoinvent 3.6	Database	2019
Plastic - Polypropylene (PP)	ecoinvent 3.6	Database	2019
Plastic - Polyurethane (PUR)	ecoinvent 3.6	Database	2019
Powder coating	Ecoinvent 3.6	Database	2019
Recycled cardboard	Modified ecoinvent 3.6	Database	2019
Reinforcement	ecoinvent 3.6	Database	2019
Textile - Polyester	ecoinvent 3.6	Database	2019
Textile - Polyester	Modified ecoinvent 3.6	Database	2019

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



#### System boundary:



#### Additional technical information:

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### 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, plastic film (LDPE), to average treatment - A5 (kg)	kg	0,13			
Waste, packaging, PET straps, to average treatment - A5 (kg)	kg	0,02			
Waste, packaging, cardboard, 100 % recycled, to average treatment (kg)	kg	3,55			
Waste, packaging, corrugated board box, 0 % recycled, to average treatment (kg)	kg	0,03			
Waste, packaging, paper printed, to average treatment (kg)	kg	0,02			
Waste, packaging, plastic tape, to average treatment (kg)	kg	0,01			
Maintenance (B2)	Unit	Value			
Water, tap water (m3)	m3/DU	0,78			
Electricity, European average (kWh)	kWh/DU	10,53			
Electricity, World average (kWh)	kWh/DU	1,17			
Repair (B3)	Unit	Value			
Electricity, European average (kWh)	kWh/DU	0,50			
Electricity, World average (kWh)	kWh/DU	0,06			
Transport to waste processing (C2)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, 16-32 tonnes, EURO 5 (km)	36,7 %	85	0,044	l/tkm	3,74
Waste processing (C3)	Unit	Value			
Waste treatment per kg Textile, incineration with fly ash extraction (kg)	kg	1,07			
Waste treatment per kg Scrap copper, incineration with fly ash extraction (kg)	kg	0,01			
Waste, materials to recycling (kg)	kg	1,44			
Waste treatment per kg Polyurethane (PU), incineration (kg)	kg	3,00			
Waste treatment per kg Plastics, Mixture, municipal incineration with fly ash extraction (kg)	kg	4,18			
Waste treatment per kg Non-hazardous waste, incineration with fly ash extraction - C3 (kg)	kg	1,81			
Waste treatment per kg Scrap steel, incineration with fly ash extraction (kg)	kg	3,27			
Waste treatment per kg Polyoxymethylene (POM), incineration with fly ash extraction (kg) - CH - C3	kg	0,11			
Waste treatment per kg Polypropylene (PP), incineration with fly ash extraction - C3 (kg)	kg	0,35			
Waste treatment per kg Scrap aluminium, incineration with fly ash extraction (kg)	kg	3,15			

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Disposal (C4)	Unit	Value		
Landfilling of ashes from incineration of Textile, soiled, process per kg ashes and residues (kg)	kg	0,05		
Landfilling of ashes and residues from incineration of Scrap copper (kg)	kg	0,01		
Landfilling of ashes from incineration of Polyurethane (PU), process per kg ashes and residues - C4 (kg)	kg	0,11		
Landfilling of ashes from incineration of Plastics, Mixture, municipal incineration with fly ash extraction, process per kg ashes and residues - C4 (kg)	kg	0,15		
Landfilling of ashes from incineration of Non- hazardous waste, process per kg ashes and residues - C4 (kg)	kg	0,43		
Landfilling of ashes and residues from incineration of Scrap steel (kg)	kg	2,16		
Landfilling of ashes from incineration of Polyoxymethylene (POM), process per kg ashes and residues (kg) - CH - C4	kg	0,00		
Landfilling of ashes from incineration of Polypropylene, PP, process per kg ashes and residues - C4 (kg)	kg	0,01		
Landfilling of ashes and residues from incineration of Scrap aluminium (kg)	kg	2,82		
Benefits and loads beyond the system	Unit	Value		

boundaries (D)	Unit	Value		
Substitution of electricity, in Norway (MJ)	MJ	13,37		
Substitution of thermal energy, district heating, in Norway (MJ)	MJ	202,34		
Substitution of primary Brass with net scrap (kg)	kg	0,00		
Substitution of primary steel with net scrap (kg)	kg	0,92		

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### LCA: Results

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

Environme	ental impact							
	Indicator	Un		A1-A3	A4	A5	B2	B3
P	GWP-total	kg CO	2 -eq	5,31E+01	1,88E+00	6,17E+00	5,67E+00	2,54E-01
P	GWP-fossil	kg CO	kg CO <sub>2</sub> -eq		1,88E+00	7,01E-02	5,62E+00	2,52E-01
P	GWP-biogenic	kg CO	2 -eq	-5,31E+00	7,72E-04	6,10E+00	3,61E-02	1,62E-03
P	GWP-luluc	kg CO	2 -eq	6,00E-02	5,49E-04	2,01E-05	1,27E-02	5,74E-04
Ò	ODP	kg CFC	l1 -eq	3,63E-06	4,35E-07	1,30E-08	4,39E-07	1,95E-08
(A)	АР	mol H	⊦ -eq	3,13E-01	7,91E-03	2,90E-04	3,22E-02	1,44E-03
æ	EP-FreshWater	kg P	-eq	2,95E-03	1,43E-05	5,02E-07	5,47E-04	2,47E-05
	EP-Marine	kg N	-eq	6,77E-02	2,38E-03	1,04E-04	4,31E-03	1,91E-04
	EP-Terrestial	mol N	-eq	6,69E-01	2,63E-02	1,04E-03	5,22E-02	2,32E-03
	POCP	kg NMV	DC -eq	2,14E-01	8,46E-03	3,01E-04	1,35E-02	5,94E-04
B	ADP-minerals&metals <sup>1</sup>	kg Sb	kg Sb-eq		3,21E-05	1,48E-06	4,34E-05	1,69E-06
B	ADP-fossil <sup>1</sup>	M	I	8,80E+02	2,93E+01	8,63E-01	1,08E+02	4,87E+00
<u>%</u>	WDP <sup>1</sup>	m	3	1,42E+04	2,24E+01	1,20E+00	1,51E+03	6,70E+01
	Indicator	Unit	B4	C1	C2	C3	C4	D
Ø	<b>Indicator</b> GWP-total	<b>Unit</b> kg CO <sub>2</sub> -eq	B4 0	C1 0	C2 2,94E-01	C3 2,49E+01	C4 6,57E-02	D -2,23E+00
P								
	GWP-total	kg CO <sub>2</sub> -eq	0	0	2,94E-01	2,49E+01	6,57E-02	-2,23E+00
P	GWP-total GWP-fossil	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq	0	0 0	2,94E-01 2,93E-01	2,49E+01 2,34E+01	6,57E-02 6,57E-02	-2,23E+00 -2,19E+00
P	GWP-total GWP-fossil GWP-biogenic	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq	0 0 0	0 0 0	2,94E-01 2,93E-01 1,20E-04	2,49E+01 2,34E+01 1,56E+00	6,57E-02 6,57E-02 5,28E-05	-2,23E+00 -2,19E+00 -3,01E-03
P	GWP-total GWP-fossil GWP-biogenic GWP-luluc	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq	0 0 0	0 0 0 0	2,94E-01 2,93E-01 1,20E-04 1,03E-04	2,49E+01 2,34E+01 1,56E+00 1,68E-04	6,57E-02 6,57E-02 5,28E-05 1,84E-05	-2,23E+00 -2,19E+00 -3,01E-03 -4,09E-02
P P P	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CFC11 -eq	0 0 0 0 0	0 0 0 0 0	2,94E-01 2,93E-01 1,20E-04 1,03E-04 6,69E-08	2,49E+01 2,34E+01 1,56E+00 1,68E-04 9,44E-08	6,57E-02 6,57E-02 5,28E-05 1,84E-05 1,85E-08	-2,23E+00 -2,19E+00 -3,01E-03 -4,09E-02 -8,55E-02
P P D D E	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CFC11 -eq mol H+ -eq	0 0 0 0 0 0 0	0 0 0 0 0 0	2,94E-01 2,93E-01 1,20E-04 1,03E-04 6,69E-08 1,20E-03	2,49E+01 2,34E+01 1,56E+00 1,68E-04 9,44E-08 1,04E-02	6,57E-02 6,57E-02 5,28E-05 1,84E-05 1,85E-08 4,31E-04	-2,23E+00 -2,19E+00 -3,01E-03 -4,09E-02 -8,55E-02 -1,51E-02
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP EP-FreshWater	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CFC11 -eq mol H+ -eq kg P -eq	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	2,94E-01 2,93E-01 1,20E-04 1,03E-04 6,69E-08 1,20E-03 2,30E-06	2,49E+01 2,34E+01 1,56E+00 1,68E-04 9,44E-08 1,04E-02 8,19E-06	6,57E-02 6,57E-02 5,28E-05 1,84E-05 1,85E-08 4,31E-04 6,88E-07	-2,23E+00 -2,19E+00 -3,01E-03 -4,09E-02 -8,55E-02 -1,51E-02 -1,70E-04
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP EP-FreshWater EP-Marine	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CFC11 -eq mol H+ -eq kg P -eq kg N -eq	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	2,94E-01 2,93E-01 1,20E-04 1,03E-04 6,69E-08 1,20E-03 2,30E-06 3,56E-04	2,49E+01 2,34E+01 1,56E+00 1,68E-04 9,44E-08 1,04E-02 8,19E-06 5,49E-03	6,57E-02 6,57E-02 5,28E-05 1,84E-05 1,85E-08 4,31E-04 6,88E-07 1,52E-04	-2,23E+00 -2,19E+00 -3,01E-03 -4,09E-02 -8,55E-02 -1,51E-02 -1,70E-04 -4,22E-03
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP EP-FreshWater EP-Marine EP-Terrestial	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CFC11 -eq mol H+ -eq kg P -eq kg N -eq mol N -eq	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	2,94E-01 2,93E-01 1,20E-04 1,03E-04 6,69E-08 1,20E-03 2,30E-06 3,56E-04 3,93E-03	2,49E+01 2,34E+01 1,56E+00 1,68E-04 9,44E-08 1,04E-02 8,19E-06 5,49E-03 5,36E-02	6,57E-02 6,57E-02 5,28E-05 1,84E-05 1,85E-08 4,31E-04 6,88E-07 1,52E-04 1,69E-03	-2,23E+00 -2,19E+00 -3,01E-03 -4,09E-02 -8,55E-02 -1,51E-02 -1,70E-04 -4,22E-03 -4,51E-02
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP EP-FreshWater EP-Marine EP-Terrestial POCP	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CFC11 -eq mol H+ -eq kg P -eq kg N -eq mol N -eq kg NMVOC -eq	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	2,94E-01 2,93E-01 1,20E-04 1,03E-04 6,69E-08 1,20E-03 2,30E-06 3,56E-04 3,93E-03 1,20E-03	2,49E+01 2,34E+01 1,56E+00 1,68E-04 9,44E-08 1,04E-02 8,19E-06 5,49E-03 5,36E-02 1,28E-02	6,57E-02 6,57E-02 5,28E-05 1,84E-05 1,85E-08 4,31E-04 6,88E-07 1,52E-04 1,69E-03 4,85E-04	-2,23E+00 -2,19E+00 -3,01E-03 -4,09E-02 -8,55E-02 -1,51E-02 -1,70E-04 -4,22E-03 -4,51E-02 -1,46E-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

"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

**Remarks to environmental impacts** 

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Additional er	Additional environmental impact indicators							
	Indicator	Unit		A1-A3	A4	A5	B2	B3
	PM	Disease incidence		3,68E-06	1,66E-07	4,33E-09	1,14E-07	4,75E-09
	IRP <sup>2</sup>	kgBq U235 -eq		1,99E+00	1,28E-01	3,70E-03	8,90E-01	4,03E-02
	ETP-fw <sup>1</sup>	CTUe		2,24E+03	2,14E+01	1,13E+00	8,66E+01	3,84E+00
40 * ****	HTP-c <sup>1</sup>	CTUh		9,53E-08	0,00E+00	3,40E-11	2,79E-09	9,70E-11
88 E	HTP-nc <sup>1</sup>	CTUh	CTUh		2,07E-08	1,41E-09	8,81E-08	3,37E-09
	SQP <sup>1</sup>	dimensionless	dimensionless		3,36E+01	6,31E-01	2,53E+01	1,13E+00
h	ndicator	Unit	B4	C1	C2	C3	C4	D
	PM	Disease incidence	0	0	2,11E-08	4,74E-08	7,70E-09	-6,70E-07
	IRP <sup>2</sup>	kgBq U235 -eq	0	0	1,93E-02	1,22E-02	5,58E-03	-1,04E-01
	ETP-fw <sup>1</sup>	CTUe	0	0	3,26E+00	7,01E+01	9,31E-01	-1,52E+02
	HTP-c <sup>1</sup>	CTUh	CTUh 0		0,00E+00	1,69E-09	3,50E-11	-6,60E-09
48- 25-	HTP-nc <sup>1</sup>	CTUh	0	0	3,52E-09	6,01E-08	1,05E-09	1,33E-08
	SQP <sup>1</sup>	dimensionless	0	0	3,05E+00	8,35E-01	3,02E+00	-1,13E+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)

"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.

## l:lol:l:

Resource use									
	Indicator		U	nit	A1-A3	A4	A5	B2	B3
i de la companya de l	PERE		Ν	LN	1,37E+02	3,68E-01	1,46E-02	1,99E+01	9,05E-01
E.	PERM		Ν	LN	2,15E+01	0,00E+00	-2,15E+01	0,00E+00	0,00E+00
° <b>≓</b> ₃	PERT		Ν	Ŋ	1,59E+02	3,68E-01	-2,14E+01	1,99E+01	9,05E-01
A	PENRE		Ν	Ŋ	7,38E+02	2,93E+01	8,63E-01	1,08E+02	4,88E+00
.Åø	PENRM		Ν	Ŋ	2,73E+02	0,00E+00	-5,97E+00	0,00E+00	0,00E+00
IA	PENRT		Ν	Ŋ	1,01E+03	2,93E+01	-5,11E+00	1,08E+02	4,88E+00
	SM		k	g	1,21E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	RSF		Ν	Ŋ	6,16E-01	1,29E-02	4,77E-04	1,38E+00	6,27E-02
Ū.	NRSF		MJ		1,49E+00	4,32E-02	1,92E-03	3,70E-01	1,51E-02
69	FW		n	n <sup>3</sup>	8,30E-01	3,33E-03	4,10E-04	8,69E-01	3,99E-03
	ndicator	ι	Jnit	B4	C1	C2	C3	C4	D
ș. S	PERE		MJ	0	0	6,24E-02	2,53E-01	2,89E-02	-1,04E+02
1 I	PERM		MJ	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
×.	PERT		MJ	0	0	6,24E-02	2,53E-01	2,89E-02	-1,04E+02
B	PENRE		MJ	0	0	4,42E+00	6,04E+00	1,38E+00	-2,53E+01
<u>Å</u> e	PENRM		MJ	0	0	0,00E+00	-2,67E+02	0,00E+00	0,00E+00
IA	PENRT		MJ	0	0	4,42E+00	-2,61E+02	1,38E+00	-2,53E+01
	SM		kg	0	0	0,00E+00	0,00E+00	0,00E+00	-3,45E-04
<u>r</u>	RSF		MJ	0	0	2,23E-03	5,92E-03	7,57E-04	1,83E-02
100	NRSF		MJ	0	0	7,97E-03	0,00E+00	3,86E-02	-5,08E+00
۲	FW		m <sup>3</sup>	0	0	4,66E-04	2,54E-02	1,24E-03	-1,27E-01

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; PERT = Total use of renewable primary energy resources; Secondary resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary materials; Rest = Use of non renewable primary energy resources; SM = Use of secondary materials; Rest = Use of renewable primary energy resources; SM = Use of non-renewable primary energy resources; SM = Use of secondary materials; Rest = Use of renewable primary energy resources; SM = Use of non-renewable primary energy resources; SM = Use of secondary materials; Rest = Use of renewable primary energy resources; SM = Use of non-renewable primary energy resources; SM = Use of secondary materials; Rest = Use of renewable primary energy resources; SM = Use of non-renewable primary energy resources; SM = Use of secondary materials; Rest = Use of renewable primary energy resources; SM = Use of non-renewable primary energy resources; SM = Use of non-renewable secondary fuels; Rest = 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

## l:lol:l:

End of life - Waste	nd of life - Waste								
	Indicator		Unit		A1-A3	A4	A5	B2	B3
Â	HWD	kg		7,18E-01	1,60E-03	0,00E+00	1,87E-02	8,39E-04	
Ū	NHWD	kg		1,02E+01	2,55E+00	3,75E+00	4,24E-01	1,73E-02	
<b></b>	RWD		kg		1,91E-03	2,00E-04	0,00E+00	7,21E-04	3,26E-05
In	dicator		Unit	B4	C1	C2	C3	C4	D
A	HWD		kg	0	0	2,26E-04	0,00E+00	5,45E+00	-6,09E-03
Ū	NHWD		kg	0	0	2,11E-01	1,81E+00	1,86E-01	-8,11E-01
<b></b>	RWD		kg	0	0	3,02E-05	0,00E+00	8,97E-06	-8,52E-05

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	nd of life - Output flow								
Indi	cator		Unit		A1-A3	A4	A5	B2	B3
¢	CRU		kg		0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
\$\$	MFR		kg		8,33E-01	0,00E+00	3,42E+00	0,00E+00	0,00E+00
DF	MER		kg		6,82E-06	0,00E+00	1,41E-03	0,00E+00	0,00E+00
۶D	EEE		MJ		4,60E-01	0,00E+00	2,06E-01	0,00E+00	0,00E+00
DI	EET		MJ		6,97E+00	0,00E+00	3,11E+00	0,00E+00	0,00E+00
Indicato	r	Unit		B4	C1	C2	C3	C4	D
$\otimes \triangleright$	CRU	kg		0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
\$\$D	MFR	kg		0	0	0,00E+00	1,44E+00	0,00E+00	-4,64E-05
DF	MER	kg		0	0	0,00E+00	1,70E+01	0,00E+00	-5,60E-06
۶D	EEE	MJ		0	0	0,00E+00	1,23E+01	0,00E+00	-3,52E-05
DI	EET	MJ		0	0	0,00E+00	1,86E+02	0,00E+00	-5,33E-04

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	0,00E+00					
Biogenic carbon content in accompanying packaging	kg C	1,66E+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	Source	Amount	Unit
Electricity, high voltage, hydro (kWh) - PL	ecoinvent 3.6	4,02	g CO2-eq/kWh

#### **Dangerous substances**

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

#### Indoor environment

Möbelfakta, Blue Angel, Greenguard Gold.

#### **Additional Environmental Information**

#### **Key Environmental Indicators**

Key environmental indicators	Unit	A1-A3	A4	A1-C4	A1-D
GWPtotal	kg CO <sub>2</sub> -eq	53,08	1,88	92,36	90,13
Total energy consumption	MJ	877,82	29,69	1056,42	921,71
Amount of recycled materials	%	58,53			

Additional environmental impact indicators required in NPCR Part A for construction products							
Indicator	Unit	Unit		A4	A5	B2	B3
GWPIOBC	kg CO <sub>2</sub> -eq	kg CO <sub>2</sub> -eq		1,88E+00	7,01E-02	5,99E+00	2,69E-01
Indicator	Unit	B4	C1	C2	C3	C4	D
GWPIOBC	kg CO <sub>2</sub> -eq	0	0	2,94E-01	2,32E+01	8,50E-02	-2,72E+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 <sub>2</sub> -eq)	Total energy consumption (MJ)	Amount of recycled materials (%)	
Profim ElliePro 20 ST - Plastic base, Low backrest, Uph. (Xtreme/Camira) - No Packaging	16,37	58,14	820,50	42,74	
Profim ElliePro 10 ST - Plastic base, High backrest, Uph. (Xtreme/Camira) - No Packaging	17,09	61,23	863,16	41,86	
Profim ElliePro 20 HST - Alu 4legs base, Low backrest, Uph. (Xtreme/Camira) - No Packaging	16,96	55,20	772,49	50,54	
Profim ElliePro 10 HST - Alu 4legs base, High backrest, Uph. (Xtreme/Camira) - No Packaging	17,67	58,29	815,21	49,37	
Profim ElliePro 20 V3 - Wire frame legs, Low backrest, Uph. (Xtreme/Camira) - No Packaging	18,75	66,70	926,52	37,59	
Profim ElliePro 10 V3 - Wire frame legs, High backrest, Uph. (Xtreme/Camira) - No Packaging	19,47	69,80	969,18	36,91	
Profim ElliePro 20 HW - Wooden frame legs, Low backrest, Uph. (Xtreme/Camira) - No Packaging	15,33	50,27	756,81	36,85	
Profim ElliePro 10 HW - Wooden frame legs, High backrest, Uph. (Xtreme/Camira) - No Packaging	16,04	53,36	799,47	36,17	

Key environmental indicators (A1-A3) for options for this EPD					
Options	Weight (kg)	GWPtotal (kg CO <sub>2</sub> -eq)	Total energy consumption (MJ)	Amount of recycled materials (%)	
Profim ElliePro – Packaging no. 1 (Small box, not assembled)	3,75	-2,12	105,34	94,93	
Profim ElliePro – Packaging no. 2 (Large box, fully assembled)	4,83	-3,20	127,78	77,21	

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