



Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

Capella X Task Chair





The Norwegian EPD Foundation

Owner of the declaration:

Kinnarps AB

Product:

Capella X Task Chair

Declared unit:

1 pc

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-9216-8804

Registration number:

NEPD-9216-8804

Issue date: 03.03.2025

Valid to: 03.03.2030

EPD software:

LCAno EPD generator ID: 782715



General information

Product

Capella X Task Chair

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-9216-8804

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 Capella X Task Chair

Declared unit (cradle to gate) with option:

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

Functional unit:

Production of one Capella X task chair, provided and maintained for a period of 15 years.

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:

Kinnarps AB

Contact person: Johanna Ljunggren - Corporate Sustainability

Manager

Phone: +46 515 381 21

e-mail: johanna.ljunggren@kinnarps.se

Manufacturer:

Kinnarps AB

Place of production:

Kinnarps AB Industrigatan 521 88 Kinnarp, Sweden

Management system:

ISO 9001, ISO 14001, ISO 45001

Organisation no:

556256-6736

Issue date:

03.03.2025

Valid to:

03.03.2030

Year of study:

2024

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: Isabell Vesterberg

Reviewer of company-specific input data and EPD: Rickard Thil

Approved:

Håkon Hauar

Managing Director of EPD-Norway



Product

Product description:

Capella X task chair, CFM110, black edition with plastic starbase and 100 % recycled polyester fabric. The data in this EPD applies for castors for soft flooring as well as for hard flooring. Armrests and headrest available as options.

Capella X is a family of ergonomic chairs that contributes to sustainable working environments and the well-being of employees. Sitting properly and feeling good is a matter of not sitting still. These task chairs therefore keep you moving. The seat does not lock, which provides well-balanced micro-movements that allow you to move even while sitting down. The seat and back also move independently of each other, encouraging active sitting. This increases blood circulation for more energy and better health. The controls are easy to reach and intuitive to set, so you can easily customise your task chair.

Product specification

Capella X is a complete family of chairs that offers different functionality and areas of use depending on which version you choose. There are two different mechanisms available – FreeMotion®, where seat and back move independently, or SyncMotion™, where the seat and back move synchronously. Choose between low or high back, and two different variants of armrests (4D Ax armrest or 5D armrest). The chair is available in black, beige or a polished finish.

This EPD includes the following variants:

Capella X, CFM110, beige edition with aluminium starbase and 100% recycled polyester fabric

Capella X, CFM120, black edition with plastic starbase and 100 % recycled polyester fabric

Capella X, CFM110, black edition with plastic starbase and wool-blend fabric

Included options are:

Armrest 4D

Armrest 5D

Headrest with 100% recycled polyester fabric

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Metal - Steel low alloy	0,86	6,01	0,86	100,00
Plastic - Nylon (PA)	2,87	20,13	0,00	0,00
Plastic - Polyoxymethylene (POM)	0,28	1,95	0,00	0,74
Plastic - Polypropylene (PP)	2,19	15,37	0,00	0,00
Powder coating	0,02	0,14	0,00	0,00
Rubber, synthetic	0,03	0,20	0,00	0,00
Textile - Polypropylene (PP)	0,15	1,06	0,00	0,00
Thermoplastic elastomers (TPE)	0,32	2,23	0,00	0,00
Metal - Aluminium	1,84	12,91	1,84	100,00
Metal - Steel	2,05	14,40	0,30	14,65
Metal - Zinc	0,18	1,26	0,00	0,00
Additives	0,46	3,24	0,00	0,00
Chemical	2,38	16,70	0,00	0,00
Plastic - Polyurethane (PUR)	0,17	1,20	0,00	0,00
Textile - Polyester	0,46	3,20	0,39	85,77
Total	14,25	100,00	3,39	

Technical data:

Fulfilled technical standards:

EN 1335-1 Dimensions

EN 1335-2 Safety requirements, tested for 130 kg user weight

Fulfilled fire requirements:

EN 1021-1 Assessment of the ignitability of upholstered furniture – part 1: Ignition source smouldering cigarette, with Kinnarps' standard fabrics EN 1021-2 Assessment of the ignitability of upholstered furniture – part 2: Ignition source match flame equivalent, with Kinnarps' standard fabrics

Market:

Mainly Europe, but is available worldwide.

Reference service life, product



15 years.

Reference service life, building

LCA: Calculation rules

Declared unit:

1 pcs Capella X Task Chair

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
Additives	Ecoinvent 3.6	Database	2019
Chemical	Ecoinvent 3.6	Database	2019
Metal - Aluminium	ecoinvent 3.6	Database	2019
Metal - Steel	ecoinvent 3.6	Database	2019
Metal - Steel low alloy	ecoinvent 3.6	Database	2019
Metal - Zinc	ecoinvent 3.6	Database	2019
Plastic - Nylon (PA)	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
Rubber, synthetic	ecoinvent 3.6	Database	2019
Textile - Polyester	ecoinvent 3.6	Database	2019
Textile - Polyester	SCS-EPD-08784	EPD	2020
Textile - Polypropylene (PP)	ecoinvent 3.6	Database	2019
Thermoplastic elastomers (TPE)	ecoinvent 3.6	Database	2019



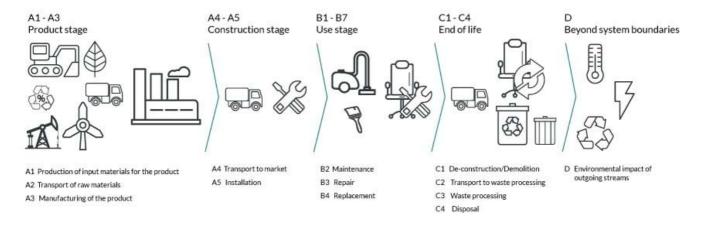
System boundaries (X=included, MND=module not declared, MNR=module not relevant)

P	roduct stag	je		ruction ion stage		Use stage					End of li	ife stage		Beyond the system boundaries		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refu <i>r</i> bishment	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	В5	В6	В7	C1	C2	C3	C4	D
Χ	X	Χ	X	Χ	MND	Χ	Χ	Χ	MND	MND	MND	Χ	Χ	Χ	Χ	X

System boundary:

The upholstering and certain plastic components are manufactured at Kinnarps' production site in Skillingaryd, where the fabric is also processed. The mechanism and certain steel components are manufactured at Kinnarps' production site in Jönköping and some are purchased as premanufactured components. Final assembly of the product is done at Kinnarps' production site in Kinnarp.

The flow chart below illustrates the system boundaries of the analysis.



Additional technical information:



LCA: Scenarios and additional technical information

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

The product is shipped to the consumer in Kinnarps' trucks with blankets and cardboard sheets as packaging material which is returned to the factory after delivery and reused. This method saves 270 kg of packaging material per container and enables 50% more products to be transported in each truck. Kinnarps' trucks have a load efficiency of approximately 87 % and are run on fuel with renewable content. For more information about sustainability at Kinnarps, visit https://www.kinnarps.com/about-kinnarps/sustainability/.

The maintenance scenario includes vaccum cleaning of textiles once a week for the whole reference service life.

In normal use, no repair or replacement is required during the product's referenced service life.

Transport from production place to user (A4)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, 16-32 tonnes, HVO, EURO 6 (kgkm)	36,7 %	300	0,043	l/tkm	12,90
Maintenance (B2)	Unit	Value			
Electricity, European average (kWh)	kWh	11,70			
Transport to waste processing (C2)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, over 32 tonnes, EURO 6 (km)	53,3 %	85	0,023	l/tkm	1,96
Waste processing (C3)	Unit	Value			
Waste treatment per kg Textile, incineration with fly ash extraction (kg)	kg	0,60			
Waste, materials to recycling (kg)	kg	1,17			
Waste treatment per kg Scrap steel, incineration with fly ash extraction (kg)	kg	2,90			
Waste treatment per kg Non-hazardous waste, incineration with fly ash extraction - C3 (kg)	kg	1,26			
Waste treatment per kg Polyurethane (PU), incineration (kg)	kg	1,0095			
Waste treatment per kg Plastics, Mixture, municipal incineration with fly ash extraction (kg)	kg	1,79			
Waste treatment per kg Polypropylene (PP), incineration with fly ash extraction - C3 (kg)	kg	2,50			
Waste treatment per kg Scrap aluminium, incineration with fly ash extraction (kg)	kg	1,83			
Waste treatment per kg Glass, incineration with fly ash extraction (kg)	kg	1,54			
Waste treatment per kg Rubber, municipal incineration with fly ash extraction (kg)	kg	0,029			
Waste treatment per kg Polyoxymethylene (POM), incineration with fly ash extraction (kg) - CH - C3	kg	0,27			
Disposal (C4)	Unit	Value			
Landfilling of ashes from incineration of Textile, soiled, process per kg ashes and residues (kg)	kg	0,030			
Landfilling of ashes and residues from incineration of Scrap steel (kg)	kg	1,92			
Landfilling of ashes from incineration of Non- hazardous waste, process per kg ashes and residues - C4 (kg)	kg	0,30			
Landfilling of ashes from incineration of Polyurethane (PU), process per kg ashes and residues - C4 (kg)	kg	0,038			
Landfilling of ashes from incineration of Plastics, Mixture, municipal incineration with fly ash extraction, process per kg ashes and residues - C4 (kg)	kg	0,062			
Landfilling of ashes from incineration of Polypropylene, PP, process per kg ashes and residues - C4 (kg)	kg	0,074			
Landfilling of ashes and residues from incineration of Scrap aluminium (kg)	kg	1,64			
Landfilling of ashes from incineration of Glass, process of ashes and residues (kg)	kg	1,54			
Landfilling of ashes from incineration of Rubber, process per kg ashes and residues - C4 (kg)	kg	0,0015			
Landfilling of ashes from incineration of Polyoxymethylene (POM), process per kg ashes and residues (kg) - CH - C4	kg	0,0061			



Benefits and loads beyond the system boundaries (D)	Unit	Value		
Substitution of electricity, in Norway (MJ)	MJ	9,91		
Substitution of thermal energy, district heating, in Norway (MJ)	MJ	150,079		
Substitution of primary steel with net scrap (kg)	kg	-0,015		



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 -eq	6,80E+01	1,68E-01	0	5,01E+00	0
	GWP-fossil	kg	kg CO ₂ -eq		1,68E-01	0	4,96E+00	0
	GWP-biogenic	kg	CO ₂ -eq	9,25E-01	2,84E-04	0	3,49E-02	0
	GWP-luluc	kg	ı CO ₂ -eq	9,89E-02	2,61E-04	0	1,15E-02	0
(3)	ODP	kg	CFC11 -eq	4,02E-06	3,46E-08	0	4,20E-07	0
Carrie Carrie	AP	m	ol H+ -eq	3,25E-01	1,18E-03	0	2,90E-02	0
-	EP-FreshWater	ı	kg P -eq	3,94E-03	6,15E-06	0	5,30E-04	0
	EP-Marine	k	g N -eq	7,47E-02	3,11E-04	0	3,68E-03	0
	EP-Terrestial	m	iol N -eq	7,02E-01	3,48E-03	0	4,53E-02	0
	POCP	kg N	IMVOC -eq	2,31E-01	1,27E-03	0	1,15E-02	0
	ADP-minerals&metals ¹	k	g Sb-eq	2,24E-02	2,04E-05	0	3,64E-05	0
	ADP-fossil ¹		МЈ	1,13E+03	3,55E+00	0	1,02E+02	0
<u></u>	WDP ¹		m ³	1,25E+04	1,05E+01	0	1,54E+03	0
			III	1,232 . 0 1	.,052 - 0 .	Ū	.,	· ·
	Indicator	Unit	B4	C1	C2	C3	C4	D
	Indicator GWP-total	Unit kg CO ₂ -eq						
			B4	C1	C2	C3	C4	D
	GWP-total	kg CO ₂ -eq	B4 0	C1 0	C2 1,07E-01	C3 1,79E+01	C4 6,38E-02	D -8,85E-01
	GWP-total GWP-fossil	kg CO ₂ -eq	B4 0 0	C1 0	C2 1,07E-01 1,07E-01	C3 1,79E+01 1,70E+01	C4 6,38E-02 6,38E-02	D -8,85E-01 -8,53E-01
	GWP-total GWP-fossil GWP-biogenic	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq	B4 0 0 0	C1 0 0	C2 1,07E-01 1,07E-01 4,57E-05	C3 1,79E+01 1,70E+01 8,88E-01	C4 6,38E-02 6,38E-02 4,96E-05	D -8,85E-01 -8,53E-01 -1,79E-03
	GWP-total GWP-fossil GWP-biogenic GWP-Iuluc	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq	B4 0 0 0 0	0 0 0 0	C2 1,07E-01 1,07E-01 4,57E-05 3,25E-05	C3 1,79E+01 1,70E+01 8,88E-01 1,01E-04	C4 6,38E-02 6,38E-02 4,96E-05 1,84E-05	D -8,85E-01 -8,53E-01 -1,79E-03 -3,00E-02
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CC ₂ -eq	B4 0 0 0 0 0	0 0 0 0 0	C2 1,07E-01 1,07E-01 4,57E-05 3,25E-05 2,57E-08	C3 1,79E+01 1,70E+01 8,88E-01 1,01E-04 5,17E-08	C4 6,38E-02 6,38E-02 4,96E-05 1,84E-05 1,86E-08	D -8,85E-01 -8,53E-01 -1,79E-03 -3,00E-02 -6,34E-02
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CFC11 -eq mol H+ -eq	B4 0 0 0 0 0 0	0 0 0 0 0	C2 1,07E-01 1,07E-01 4,57E-05 3,25E-05 2,57E-08 3,43E-04	C3 1,79E+01 1,70E+01 8,88E-01 1,01E-04 5,17E-08 5,01E-03	C4 6,38E-02 6,38E-02 4,96E-05 1,84E-05 1,86E-08 4,30E-04	D -8,85E-01 -8,53E-01 -1,79E-03 -3,00E-02 -6,34E-02 -7,08E-03
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP EP-FreshWater	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CFC11 -eq mol H+ -eq kg P -eq	B4 0 0 0 0 0 0	0 0 0 0 0 0	C2 1,07E-01 1,07E-01 4,57E-05 3,25E-05 2,57E-08 3,43E-04 8,48E-07	C3 1,79E+01 1,70E+01 8,88E-01 1,01E-04 5,17E-08 5,01E-03 5,18E-06	C4 6,38E-02 6,38E-02 4,96E-05 1,84E-05 1,86E-08 4,30E-04 6,57E-07	D -8,85E-01 -8,53E-01 -1,79E-03 -3,00E-02 -6,34E-02 -7,08E-03 -7,63E-05
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP EP-FreshWater EP-Marine	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CFC11 -eq mol H+ -eq kg P -eq kg N -eq	B4 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	C2 1,07E-01 1,07E-01 4,57E-05 3,25E-05 2,57E-08 3,43E-04 8,48E-07 7,52E-05	C3 1,79E+01 1,70E+01 8,88E-01 1,01E-04 5,17E-08 5,01E-03 5,18E-06 2,53E-03	C4 6,38E-02 6,38E-02 4,96E-05 1,84E-05 1,86E-08 4,30E-04 6,57E-07 1,52E-04	D -8,85E-01 -8,53E-01 -1,79E-03 -3,00E-02 -6,34E-02 -7,08E-03 -7,63E-05 -2,33E-03
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP EP-FreshWater EP-Marine EP-Terrestial	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CFC11 -eq mol H+ -eq kg P -eq kg N -eq mol N -eq	B4 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	C2 1,07E-01 1,07E-01 4,57E-05 3,25E-05 2,57E-08 3,43E-04 8,48E-07 7,52E-05 8,38E-04	C3 1,79E+01 1,70E+01 8,88E-01 1,01E-04 5,17E-08 5,01E-03 5,18E-06 2,53E-03 2,53E-02	C4 6,38E-02 6,38E-02 4,96E-05 1,84E-05 1,86E-08 4,30E-04 6,57E-07 1,52E-04 1,69E-03	D -8,85E-01 -8,53E-01 -1,79E-03 -3,00E-02 -6,34E-02 -7,08E-03 -7,63E-05 -2,33E-03 -2,52E-02
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP EP-FreshWater EP-Marine EP-Terrestial POCP	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CFC11 -eq mol H+ -eq kg P -eq kg N -eq mol N -eq kg NMVOC -eq	B4 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	C2 1,07E-01 1,07E-01 4,57E-05 3,25E-05 2,57E-08 3,43E-04 8,48E-07 7,52E-05 8,38E-04 3,29E-04	C3 1,79E+01 1,70E+01 8,88E-01 1,01E-04 5,17E-08 5,01E-03 5,18E-06 2,53E-03 2,53E-02 6,11E-03	C4 6,38E-02 6,38E-02 4,96E-05 1,84E-05 1,86E-08 4,30E-04 6,57E-07 1,52E-04 1,69E-03 4,85E-04	D -8,85E-01 -8,53E-01 -1,79E-03 -3,00E-02 -6,34E-02 -7,08E-03 -7,63E-05 -2,33E-03 -2,52E-02 -6,91E-03

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 env	ironmental impact ind	licators					
I	Indicator	Unit	A1-A3	A4	A5	B2	В3
	PM	Disease incidence	3,35E-06	3,89E-08	0	7,60E-08	0
	IRP ²	kgBq U235 -eq	5,36E+00	1,16E-02	0	8,97E-01	0
4	ETP-fw ¹	CTUe	1,38E+03	5,18E+00	0	7,17E+01	0
40 ×	HTP-c ¹	CTUh	1,39E-07	0,00E+00	0	2,00E-09	0
44 E	HTP-nc ¹	CTUh	1,59E-06	8,64E-09	0	6,91E-08	0
	SQP ¹	dimensionless	3,52E+02	6,61E+00	0	2,47E+01	0

li li	ndicator	Unit	B4	C1	C2	C3	C4	D
	PM	Disease incidence	0	0	9,79E-09	2,97E-08	7,75E-09	-4,33E-07
	IRP ²	kgBq U235 -eq	0	0	7,57E-03	6,91E-03	5,57E-03	-7,95E-02
<i>(2)</i>	ETP-fw ¹	CTUe	0	0	1,27E+00	3,60E+01	8,90E-01	-6,67E+01
44. *** <u>\$</u>	HTP-c ¹	CTUh	0	0	0,00E+00	1,04E-09	3,00E-11	-1,16E-09
28	HTP-nc ¹	CTUh	0	0	1,22E-09	3,28E-08	9,53E-10	-6,66E-08
	SQP ¹	dimensionless	0	0	1,98E+00	4,69E-01	3,01E+00	-8,32E+01

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.



Resource use			_			_			_
	Indicator		U	nit	A1-A3	A4	A5	B2	В3
	PERE	PERE		MJ		1,61E-01	0	1,98E+01	0
	PERM		N	۸J	1,07E+00	0,00E+00	0	0,00E+00	0
÷.	PERT		N	NJ	1,43E+02	1,61E-01	0	1,98E+01	0
	PENRE		N	NJ	9,67E+02	3,55E+00	0	1,03E+02	0
	PENRM		N	۷J	2,21E+02	0,00E+00	0	0,00E+00	0
IA	PENRT		N	۷J	1,19E+03	3,55E+00	0	1,03E+02	0
	SM		k	¢g	3,44E+00	0,00E+00	0	0,00E+00	0
2	RSF		N	NJ	1,67E+00	5,22E-03	0	1,45E+00	0
	NRSF		N	۸J	3,54E+00	1,80E-02	0	3,44E-01	0
&	FW		n	n ³	1,00E+00	1,45E-03	0	8,69E-02	0
	dicator	U	nit	B4	C1	C2	C3	C4	D
	PERE	1	MJ	0	0	2,18E-02	1,43E-01	2,77E-02	-7,68E+01
	PERM	1	MJ	0	0	0,00E+00	-9,35E-01	0,00E+00	0,00E+00
4.	PERT	1	MJ	0	0	2,18E-02	-7,92E-01	2,77E-02	-7,68E+01
3	PENRE	1	MJ	0	0	1,73E+00	3,20E+00	1,38E+00	-1,23E+01
Å	PENRM	1	MJ	0	0	0,00E+00	-1,95E+02	0,00E+00	0,00E+00
IA.	PENRT	1	MJ	0	0	1,73E+00	-1,92E+02	1,38E+00	-1,23E+01
	SM	ı	kg	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	RSF	1	ΜJ	0	0	7,62E-04	3,39E-03	7,29E-04	-1,41E-02
	NRSF	1	MJ	0	0	2,55E-03	0,00E+00	3,75E-02	-4,57E+00
•	FW	r	n ³	0	0	1,97E-04	1,17E-02	1,24E-03	-9,25E-02

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; 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



End of life - Waste									
	Indicator		Unit		A1-A3	A4	A5	B2	В3
	HWD	HWD		kg		4,98E-04	0	1,54E-02	0
Ū	NHWD		k	g	1,36E+01	5,27E-01	0	3,47E-01	0
<u> </u>	RWD		k	g	5,65E-03	1,42E-05	0	7,32E-04	0
Inc	dicator		Unit	B4	C1	C2	C3	C4	D
Ā	HWD		kg	0	0	9,47E-05	0,00E+00	5,46E+00	-4,98E-04
Ū	NHWD		kg	0	0	1,51E-01	2,81E+00	1,42E-01	-2,87E-01
æ	RWD		kg	0	0	1,18E-05	0,00E+00	8,85E-06	-6,52E-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								
Ind	icator	Uni	Unit		A4	A5	B2	В3
	CRU	kg		0,00E+00	0,00E+00	0	0,00E+00	0
\$>	MFR	kg	kg		0,00E+00	0	0,00E+00	0
DØ	MER	kg		7,94E-01	0,00E+00	0	0,00E+00	0
₹	EEE	МЈ		4,79E-01	0,00E+00	0	0,00E+00	0
DØ	EET	МЈ		7,25E+00	0,00E+00	0	0,00E+00	0
Indicato	r	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	1,18E+00	0,00E+00	0,00E+00
D₹	MER	kg	0	0	0,00E+00	1,38E+01	0,00E+00	0,00E+00
50	EEE	MJ	0	0	0,00E+00	9,18E+00	0,00E+00	0,00E+00
D	EET	МЈ	0	0	0,00E+00	1,39E+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	0,00E+00					
Biogenic carbon content in accompanying packaging	kg C	0,00E+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, Sweden (kWh)	ecoinvent 3.6	54,94	g CO2-eg/kWh

Dangerous substances

The product contains substances given by the REACH Candidate list that are less than 0,1 % by weight.

Indoor environment

Additional Environmental Information

Key Environmental Indicators

Key environmental indicators	Unit	A1-A3	A4	A1-C4	A1-D
GWPtotal	kg CO ₂ -eq	68,01	0,17	91,28	90,40
Total energy consumption	MJ	1113,51	3,73	1247,96	1154,24
Amount of recycled materials	%	23,74			

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		1,68E-01	0	5,37E+00	0
Indicator	Unit	B4	C1	C2	C3	C4	D
GWPIOBC	kg CO ₂ -eq	0	0	1,07E-01	1,67E+01	7,37E-02	-8,64E-01

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 (%)			
Capella X - CFM110 - EDBE- Aluminium starbase - 100 % recycled polyester fabric	14,70	59,93	1048,17	35,61			
Capella X - CFM110 - EDB - Plastic starbase - Wool-blend fabric	14,60	96,22	1264,80	20,79			
Capella X - CFM120 - EDB - Plastic starbase - 100% recycled polyester fabric	14,70	69,67	1142,83	24,71			

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 (%)			
Capella X - 4D armrests, pair	3,10	10,56	175,70	57,29			
Capella X - 5D armrests, pair	3,80	11,67	193,63	62,75			
Capella X - Headrest - 100% recycled polyester fabric	1,60	8,90	157,91	20,96			



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