

# Environmental Product Declaration



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

## Steel Profiles

from

### **Europrofil AB**

EPD of multiple products, based on a representative product C+-Regel, Plusregel

## **EUROPROFIL**

Solutions of steel

Programme:	The International EPD System, <a href="http://www.environdec.com">www.environdec.com</a>
Programme operator:	EPD International AB
Type of EPD:	EPD of multiple products from a company
EPD registration number:	EPD-IES-0024831
Version date:	2025-08-12
Validity date:	2030-08-11

*An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see [www.environdec.com](http://www.environdec.com)*



## GENERAL INFORMATION

Programme Information	
<b>Programme:</b>	The International EPD® System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
<b>E-mail:</b>	<a href="mailto:support@environdec.com">support@environdec.com</a>

Product Category Rules (PCR)
<b>CEN standard EN 15804 serves as the Core Product Category Rules (PCR)</b>
<b>Product Category Rules (PCR):</b> <i>Construction products 2019:14, version 2.0.1, valid until 2030-04-07, UN CPC code: 4219</i>
<b>PCR review was conducted by:</b> <i>The Technical Committee of the International EPD® System. See <a href="http://www.environdec.com">www.environdec.com</a> for a list of members. Review chair: Rob Rouwette (chair), Noa Meron (cochair). The review panel may be contacted via the Secretariat <a href="http://www.environdec.com/contact">www.environdec.com/contact</a></i>

Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:
<input checked="" type="checkbox"/> <b>Individual EPD verification without a pre-verified LCA/EPD tool</b> Third-party verifier: <i>Hüdaï Kara PhD, Metsims Sustainability Consulting, Oxford, U.K.</i> Approved by: International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

## INFORMATION ABOUT EPD OWNER

Owner of the EPD: Europrofil AB

Address: Pershyttans Ind.Omr., 713 91 Nora, Sweden

Contact: Adam Almgren (adam.almgren@europrofil.se)

Address and contact information of the LCA practitioners commissioned by the EPD owner:

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Oline Haggren ([oline@miljogiraff.se](mailto:oline@miljogiraff.se))

Description of the organisation: Europrofil is the leading Nordic specialist in sustainable steel building systems. From the production in Nora, in the heart of the Swedish Bergslagen region, they deliver smart steel solutions that make working days easier and contribute to a more efficient and sustainable construction industry.

The business was founded in 1982 and has been part of the Danish group Ib Andresen Industri A/S since 2006. In 2024, the group was acquired by Wegener GMBH. Together, they have a strong network that guarantees a high level of precision and safety in our deliveries.

As the leading specialists in the Nordic region, their vision is to develop the construction industry through sustainable steel building systems.

Product-related or management system-related certifications: ISO 9001- and 14001; EN 14195:2005; EN 1090-1:2009+A1:2011

## PRODUCT INFORMATION

Product name: C+-Regel, Plusregel (representative product)

Product identification: All products included are steel profiles. These are: C+-Regel, Plusregel; CSP+-Regel, Ljudregel; U-Skena; UH-Skena med hög fläns; UW-Skena Wallclick; CF-Förstärkningsregel; UF-Förstärkningsregel; UY-Ytterväggsskena; CY-Ytterväggsregel; CYK-Halvslitsad karmregel; ECC-EuroCeiling Bärprofil; ECCT-EuroCeiling Tvärprofil; L-L-profil; LI-Hörnregel; LV-L-profil, vikbar; P-Primärregel; PB-Plåtband; PU Påsalningsprofil U; PZ-Påsalningsprofil Z; S-Sekundärprofil; UD-Öppningsskena; VFL Ventilerad fasadläkt ZM; VFL-ST-Skärmtegel ventilerad fasadläkt; VPB-Plåtband, vikbart; ZY-Ytterväggsregel ZY.

Visual representation of the representative product:



UN CPC code: 4219

Product description: Europrofil's Steel Profiles are metal profiles for dry walls, false ceiling and façade system construction. Products are available in different dimensions and weights.

Name and location of production site(s): All included product are produced at Europrofil AB, Industrivägen 9, 713 30 Nora, Sweden.

Multiple products: All products included in this EPD are Steel profiles without additives. 25 variations will be included in this product group, and they all consist solely out of steel. Each product has the same type of composition, where only the sheet thickness and dimensions of some products differs. The steel profiles also share the same geographical scope and production site. The steel profile "C+-Regel, Plusregel" was chosen as representative product as it is the most sold of all the products in this product group. Since the products only consist of 1 material and due to the fact that the declared unit is 1 kg of product, there will be no difference in the result for the included products of this group in the EPD.

The variation in thickness and dimensions of the 25 included products in this EPD are shown below

Product name	Sheet thickness (mm)	Dimension (mm)
<b>C+-Regel, Plusregel (representative product)</b>	0,46	45-200
<b>CSP+-Regel, Ljudregel</b>	0,46	70-120
<b>U-Skena</b>	0,46	45-200
<b>UH-Skena med hög fläns</b>	0,46	45-120
<b>UW-Skena Wallclick</b>	0,6	70-100
<b>CF-Förstärkningsregel</b>	1	45-200
<b>UF-Förstärkningsregel</b>	1	45-200
<b>UY-Ytterväggsskena</b>	1	120-250
<b>CY-Ytterväggsregel</b>	1 & 1,5	120-250
<b>CYK-Halvslitsad karmregel</b>	1,5	120-250
<b>ECC-EuroCeiling Bärprofil</b>	0,6	60
<b>ECCT-EuroCeiling Tvärprofil</b>	0,6	60
<b>L-L-profil</b>	0,46	20-120
<b>LI-Hörnregel</b>	0,46	50
<b>LV-L-profil, vikbar</b>	0,46	50
<b>P-Primärregel</b>	1	45
<b>PB-Plåtband</b>	0,46	100-265
<b>PU-Påsalningsprofil U</b>	0,7	45-95
<b>PZ-Påsalningsprofil Z</b>	0,7	45-95
<b>S-Sekundärprofil</b>	0,46-1	25-45
<b>UD-Öppningsskena</b>	0,46	45-200
<b>VFL-Ventilerad fasadläkt ZM</b>	0,7 & 1	70-120
<b>VFL-ST-Skärmtegel ventilerad fasadläkt</b>	0,7 & 1	70-120
<b>VPB-Plåtband, vikbart</b>	0,46	100-265
<b>ZY-Ytterväggsregel ZY</b>	1 & 1,5	120-250

## Content declaration of C+-Regel, Plusregel

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/ declared unit
Steel	1	2,7%	0%	0
TOTAL	1	2,7%	0%	0

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg C/declared unit
Wood pallet	0,89	89%	0,4
Plastic PE straps	0,0011	0,1%	0,0
TOTAL	0,8911	89,11%	0,4

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO<sub>2</sub>.

Hazardous substances from the candidate list of SVHC	EC No.	CAS No.	Mass-% per declared unit
-	-	-	0%

## LCA INFORMATION

### Declared unit:

1 kg Steel Profile. Conversion factor for the product is 1 kg per kg

### Reference service life:

Not applicable

### Time representativeness:

The collected data is representative of the year 2024 and was obtained directly from the supplier.

### Geographical scope:

The supply of raw material A1 steel is from Europe and the transport A2 is modelled for Europe. The manufacturing in module A3 is located in Sweden. Module C and D scenarios are for Sweden.

Database(s) and LCA software used: Ecoinvent 3.10 and SimaPro Craft 10.1.

### LCIA method:

The LCIA method follows the standard for Construction Products EN 15804:2012+A2:2019/AC:2021. EN 15804:2012+A2:2019/AC:2021 uses the impact categories and characterization factors of the LCIA methods used in Environmental Footprint 3.1 (EF 3.1), with the only difference that biogenic carbon dioxide uptake is calculated as -1 and biogenic carbon dioxide emissions as +1, where EF 3.1 calculates this as 0 and 0, respectively.

Cut-off criteria:

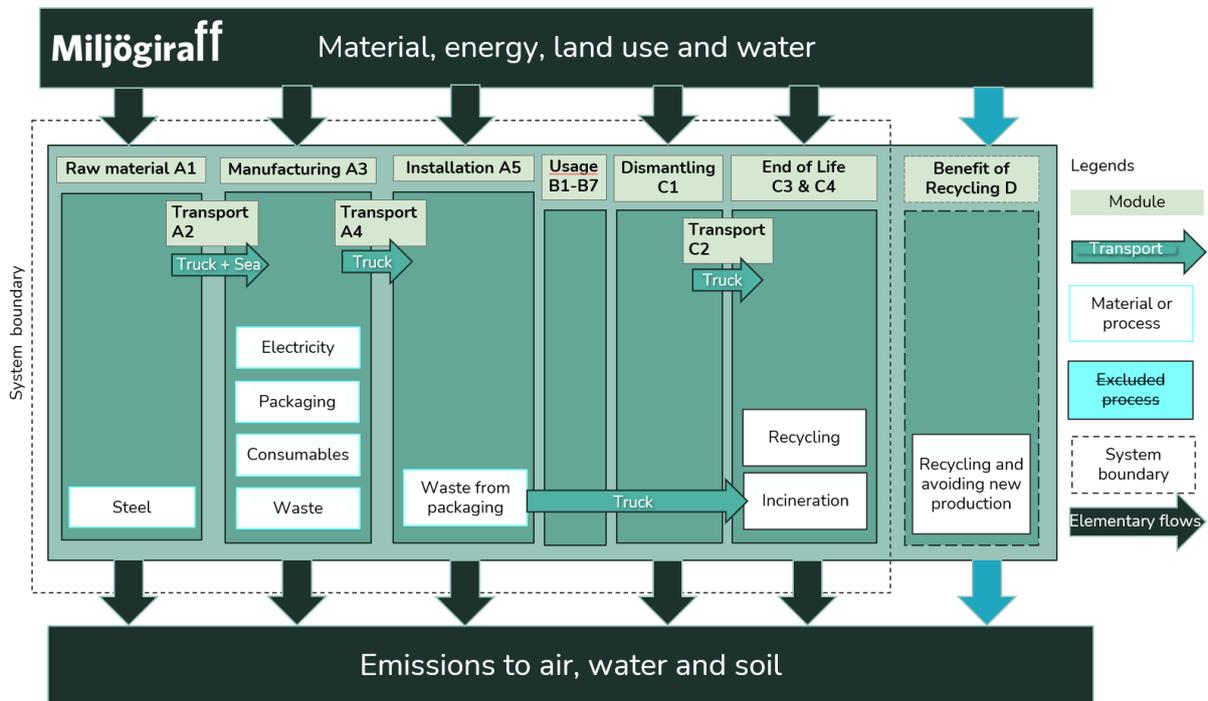
The cut-off criteria established by the PCR is 1% of all material and energy flows to a single unit process and 5% of total inflows (mass and energy) per module. No cut-offs exceeding this limit have been made.

In this study, the infrastructure and capital goods are included in the LCA analysis since it is not possible within reasonable effort to subtract the data on infrastructure/capital goods.

Description of system boundaries:

Cradle to gate with options, modules C1–C4, module D and with optional modules (A1–A3 + C + D and A4-A5 and B1-B7). However, since the product is a passive product, there will be no environmental impact during this phase.

Process flow diagram:



More information:

(A1-A2) The steel used in the Europrofil AB's steel profiles is from Europe and has an EPD. The steel is transported, by truck and sea, to a steel service centre in Sweden where it is cut before further transport by truck to Europrofil in Nora.

(A3) Europrofil AB's manufacturing takes place in Nora, Sweden, where the cut steel is folded and cut. During this process, electricity is used which also accounts for the cutting happening at the steel service centre. There is also production waste, including materials both for recycling and incineration. The finished products are packaged on wood pallets before distributed to customer.

The electricity mix for Europrofil's manufacturing has been modelled using the residual electricity mix for Sweden. This is represented using theecoinvent dataset "*Electricity, medium voltage {SE} | electricity, medium voltage, residual mix | Cut-off, U*". The climate footprint of the electricity mix is 0,0142 kg CO<sub>2</sub>-eq per kWh.

Allocation of specific data was done for the manufacturing processes in the A3 module. All the data was obtained per year and allocated by mass of total yearly production to per kg steel profile.

(A4) The finished products are transported 126 km by diesel trucks. This is represented by the ecoinvent dataset "*Transport, freight, lorry 16-32 metric ton, EURO6 {RER}*" | *transport, freight, lorry 16-32 metric ton, EURO6* | *Cut-off, U*".

(A5) Installation of the product is assumed to occur in a way that has no environmental impact, e.g. by hand. What is considered for the installation is the waste treatment of the packaging materials that comes with the product, which follows the end-of-life treatment in module C.

(B1-B7) It is assumed that there are no significant environmental aspects during the installation or use of the product.

(C1-C4) After use the product is transported to waste processing. In the C module, default values provided by the PCR 2019:14 v.2.0.1 were used for demolition/deconstruction (C1) as no specific data was obtained. The default values for transport distances to waste treatment (C2) were also used, 80 km for materials not to be incinerated and 130 km for materials to be incinerated. The transport is modelled using the ecoinvent 3.10 dataset "*Transport, freight, lorry 16-32 metric ton, EURO5 {RER}*" | *transport, freight, lorry 16-32 metric ton, EURO5* | *Cut-off, U*".

Since the majority of customers exists in Sweden, the relevant end-of-life scenario has been represented with a Swedish case. As this scenario is a mix of recycling and incineration, a 100% scenario for each waste scenario will also be declared as per PCR rules. The results for the 100% scenarios can be found in "Additional LCA results".

For the waste treatment (C3), the steel is recycled with an 85% collection and recovery rate according to recycling rates (R2) used in the Circular footprint formula of PEF, as found in Annex C2. The environmental impact from recycling is not considered following the cut-off approach applied. The remaining waste is assumed to be incinerated, approximately 100%, according to the Swedish average scenario stated in PEF Annex C.

(D) Module D accounts for the potential environmental benefits or burdens resulting from material recycling and energy recovery during incineration.

#### Data quality summary according to EN 15491

The EPD is based on data collected by Europrofil AB from their site in Nora, Sweden over one year from 2024. The EPD is representative of the production of Steel Profiles without additives produced in Nora, Sweden and data are collected directly from supplier and production site. The end-of-life stage of the EPD covers Sweden. The EPD uses background data from the Ecoinvent database v3.10, 2017-2023, and EPD data for the input material steel. The quality of the relevant data used for the EPD in terms of its time, geography and technology representativeness using EN 15804:2012+A2:2019, Annex E, E.1 is very good or good. The relevant data assessed included no other poor or very poor data.

Modules declared, geographical scope, share of primary data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage	
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential	
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	EUR	EUR	SE	EUR	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	
Share of primary data	73,4%			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Declaration of data sources, reference years, data categories, and share of primary data:

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3
A1 Raw material - Steel	EPD	EPD (confidential)	2021	Primary data	68%
Transport of raw materials in A2	Databases	Ecoinvent v3.10	2018-2022	Primary data	1,82%
Waste treatment in A3	Collected data	EPD Owner	2024	Primary data	3,53%
Manufacturing processes in A3 (contributing to less than 10% of GWP-GHG)	Database	Ecoinvent v3.10	2017-2023	Secondary data	0%
Total share of primary data, of GWP-GHG results for A1-A3					73,4%

## ENVIRONMENTAL PERFORMANCE

### LCA results of the product – main environmental performance results

#### Mandatory impact category indicators according to EN 15804, per 1 kg Steel Profile

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
<b>GWP-total</b>	kg CO <sub>2</sub> eq.	2,33E+00	4,53E-02	1,03E-01	0,00E+00	3,97E-04	1,70E-02	6,16E-03	0,00E+00	-1,43E+00
<b>GWP-fossil</b>	kg CO <sub>2</sub> eq.	2,40E+00	4,52E-02	3,75E-02	0,00E+00	3,97E-04	1,69E-02	6,15E-03	0,00E+00	-1,43E+00
<b>GWP-biogenic</b>	kg CO <sub>2</sub> eq.	-6,48E-02	3,13E-05	6,57E-02	0,00E+00	4,34E-08	1,16E-05	5,25E-06	0,00E+00	3,22E-03
<b>GWP-luluc</b>	kg CO <sub>2</sub> eq.	7,11E-04	1,50E-05	1,02E-05	0,00E+00	3,45E-08	5,54E-06	2,33E-06	0,00E+00	-5,71E-03
<b>ODP</b>	kg CFC 11 eq.	3,73E-09	9,00E-10	6,48E-10	0,00E+00	6,07E-12	3,37E-10	1,11E-10	0,00E+00	-1,06E-08
<b>AP</b>	mol H <sup>+</sup> eq.	5,67E-03	9,42E-05	2,28E-04	0,00E+00	3,58E-06	5,30E-05	4,58E-05	0,00E+00	-5,23E-03
<b>EP-freshwater</b>	kg P eq.	5,12E-06	3,53E-07	3,66E-07	0,00E+00	1,40E-09	1,30E-07	5,47E-08	0,00E+00	-7,09E-05
<b>EP-marine</b>	kg N eq.	1,79E-03	2,21E-05	9,99E-05	0,00E+00	1,66E-06	1,76E-05	1,97E-05	0,00E+00	-1,17E-03
<b>EP-terrestrial</b>	mol N eq.	1,78E-02	2,44E-04	1,07E-03	0,00E+00	1,82E-05	1,94E-04	2,17E-04	0,00E+00	-1,45E-02
<b>POCP</b>	kg NMVOC eq.	4,77E-03	1,57E-04	3,19E-04	0,00E+00	5,42E-06	8,30E-05	6,75E-05	0,00E+00	-4,65E-03
<b>ADP-minerals&amp;metals*</b>	kg Sb eq.	6,00E-05	1,47E-07	9,29E-08	0,00E+00	1,42E-10	5,42E-08	1,01E-08	0,00E+00	-4,83E-08
<b>ADP-fossil*</b>	MJ	3,11E+01	6,36E-01	4,62E-01	0,00E+00	5,19E-03	2,38E-01	1,13E-01	0,00E+00	-2,07E+01
<b>WDP*</b>	m <sup>3</sup>	2,56E-01	2,64E-03	3,55E-03	0,00E+00	1,12E-05	9,75E-04	1,55E-03	0,00E+00	-1,77E-01
<b>Acronyms</b>	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									

*Disclaimer: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.*

*The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).*

*Note: Biogenic carbon in packaging is balanced in A1–A3.*

*\* Disclaimer: 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 mandatory and voluntary impact category indicators

### Results per 1 kg Steel Profile

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
<b>GWP-GHG<sup>1</sup></b>	kg CO <sub>2</sub> eq.	2,40E+00	4,53E-02	3,75E-02	0,00E+00	3,97E-04	1,69E-02	6,16E-03	0,00E+00	-1,43E+00
<b>PM</b>	disease inc.	1,58E-08	3,32E-09	3,80E-09	0,00E+00	1,02E-10	1,33E-09	1,35E-09	0,00E+00	-1,04E-07
<b>IR<sup>2</sup></b>	kBq U-235 eq	1,94E-02	2,94E-04	1,02E-03	0,00E+00	9,04E-07	1,09E-04	9,29E-04	0,00E+00	-2,36E-01
<b>ETP – FW*</b>	CTUe	7,39E-01	1,73E-01	2,45E-01	0,00E+00	7,36E-04	6,38E-02	5,97E-02	0,00E+00	-1,17E+02
<b>HTP – C*</b>	CTUh	1,37E-09	3,21E-10	3,92E-10	0,00E+00	1,55E-12	1,18E-10	6,12E-11	0,00E+00	-4,42E-07
<b>HTP – NC*</b>	CTUh	2,40E-09	4,00E-10	1,63E-09	0,00E+00	6,42E-13	1,48E-10	2,97E-11	0,00E+00	-5,84E-09
<b>Land use, SQP*</b>	Pt	9,31E+00	3,84E-01	2,22E-01	0,00E+00	3,65E-04	1,42E-01	6,18E-02	0,00E+00	-1,32E+01
Acronyms	GWP-GHG: Global Warming Potential, Greenhouse Gases, PM: Particulate Matter, IRP: Ionizing Radiation - Human Health, ETP-FW: Ecotoxicity Potential – Freshwater, HTP-C: Human Toxicity Potential – Cancer, HTP-NC: Human Toxicity Potential – Non-Cancer, SQP: Soil Quality Potential Index									

*Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017*

*Disclaimer: The results of the impact categories land use, human toxicity (cancer), human toxicity, non-cancer and ecotoxicity (freshwater) may be highly uncertain in LCAs that include capital goods/infrastructure in generic datasets, in case infrastructure/capital goods contribute greatly to the total results. This is because the LCI data of infrastructure/capital goods used to quantify these indicators in currently available generic datasets sometimes lack temporal, technological and geographical representativeness. Caution should be exercised when using the results of these indicators for decision-making purposes.*

*\* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*

<sup>1</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero.

<sup>2</sup> 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 indicators

Results per 1 kg Steel Profile										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
PERE	MJ	3,26E+00	1,09E-02	1,11E-02	0,00E+00	3,19E-05	4,03E-03	3,64E-03	0,00E+00	-7,29E+00
PERM	MJ	1,70E+01	0,00E+00	-1,70E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,02E+01	1,09E-02	-1,70E+01	0,00E+00	3,19E-05	4,03E-03	3,64E-03	0,00E+00	-7,29E+00
PENRE	MJ	3,12E+01	6,77E-01	4,92E-01	0,00E+00	5,52E-03	2,53E-01	1,19E-01	0,00E+00	-2,16E+01
PENRM	MJ	3,32E-02	0,00E+00	-3,32E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	3,13E+01	6,77E-01	4,59E-01	0,00E+00	5,52E-03	2,53E-01	1,19E-01	0,00E+00	-2,16E+01
SM	kg	2,70E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m <sup>3</sup>	1,09E-02	9,57E-05	2,69E-04	0,00E+00	3,66E-07	3,53E-05	3,95E-05	0,00E+00	-6,64E-03
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water									

## Waste indicators

Results per 1 kg Steel Profile										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	2,42E-06	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Non-hazardous waste disposed	kg	7,55E-02	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Radioactive waste disposed	kg	6,99E-04	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

## Output flow indicators

Results per 1 kg Steel Profile										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Material for recycling	kg	0,02	0,00	0,00	0,00	0,00	0,00	0,85	0,00	0,00
Materials for energy recovery	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Exported energy, electricity	MJ	0,01	0,00	4,08	0,00	0,00	0,00	0,00	0,00	0,00
Exported energy, thermal	MJ	0,03	0,00	9,51	0,00	0,00	0,00	0,00	0,00	0,00

## Additional LCA results (other environmental performance results) of the product

### 100% Recycling Scenario for modules A5, C1-C4 & D

#### Mandatory impact category indicators according to EN 15804, per 1 kg Steel Profile

Indicator	Unit	A5	C1	C2	C3	C4	D
<b>GWP-total</b>	kg CO <sub>2</sub> eq.	-1,22E+00	3,97E-04	1,55E-02	3,43E-03	0,00E+00	-1,43E+00
<b>GWP-fossil</b>	kg CO <sub>2</sub> eq.	1,60E-02	3,97E-04	1,55E-02	3,43E-03	0,00E+00	-1,43E+00
<b>GWP-biogenic</b>	kg CO <sub>2</sub> eq.	-1,24E+00	4,34E-08	1,06E-05	2,35E-06	0,00E+00	3,22E-03
<b>GWP-luluc</b>	kg CO <sub>2</sub> eq.	5,47E-06	3,45E-08	5,06E-06	1,14E-06	0,00E+00	-5,71E-03
<b>ODP</b>	kg CFC 11 eq.	3,12E-10	6,07E-12	3,08E-10	5,57E-11	0,00E+00	-1,06E-08
<b>AP</b>	mol H <sup>+</sup> eq.	6,29E-05	3,58E-06	4,84E-05	3,07E-05	0,00E+00	-5,23E-03
<b>EP-freshwater</b>	kg P eq.	1,17E-07	1,40E-09	1,19E-07	1,48E-08	0,00E+00	-7,09E-05
<b>EP-marine</b>	kg N eq.	2,34E-05	1,66E-06	1,61E-05	1,41E-05	0,00E+00	-1,17E-03
<b>EP-terrestrial</b>	mol N eq.	2,57E-04	1,82E-05	1,78E-04	1,55E-04	0,00E+00	-1,45E-02
<b>POCP</b>	kg NMVOC eq.	9,70E-05	5,42E-06	7,59E-05	4,60E-05	0,00E+00	-4,65E-03
<b>ADP-minerals&amp;metals*</b>	kg Sb eq.	4,61E-08	1,42E-10	4,95E-08	2,43E-09	0,00E+00	-4,83E-08
<b>ADP-fossil*</b>	MJ	2,44E-01	5,19E-03	2,17E-01	6,87E-02	0,00E+00	-2,07E+01
<b>WDP*</b>	m <sup>3</sup>	1,09E-03	1,12E-05	8,91E-04	3,59E-04	0,00E+00	-1,77E-01
<b>GWP-GHG<sup>3</sup></b>	kg CO <sub>2</sub> eq.	1,60E-02	3,97E-04	1,55E-02	3,43E-03	0,00E+00	-1,43E+00
<b>Acronyms</b>	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, GWP-GHG: Global Warming Potential for Greenhouse Gases						

*Disclaimer: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.*

*The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules*

<sup>3</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero.

A1-A3).

Note: Biogenic carbon in packaging is balanced in A1–A3.)

\* Disclaimer: 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.

## 100% Incineration Scenario for modules A5, C1-C4 & D

### Mandatory impact category indicators according to EN 15804, per 1 kg Steel Profile

Indicator	Unit	A5	C1	C2	C3	C4	D
<b>GWP-total</b>	kg CO <sub>2</sub> eq.	1,04E-01	3,97E-04	2,52E-02	2,16E-02	0,00E+00	-1,43E+00
<b>GWP-fossil</b>	kg CO <sub>2</sub> eq.	3,87E-02	3,97E-04	2,52E-02	2,16E-02	0,00E+00	-1,43E+00
<b>GWP-biogenic</b>	kg CO <sub>2</sub> eq.	6,57E-02	4,34E-08	1,72E-05	2,17E-05	0,00E+00	3,22E-03
<b>GWP-luluc</b>	kg CO <sub>2</sub> eq.	1,02E-05	3,45E-08	8,22E-06	9,09E-06	0,00E+00	-5,71E-03
<b>ODP</b>	kg CFC 11 eq.	6,48E-10	6,07E-12	5,00E-10	4,22E-10	0,00E+00	-1,06E-08
<b>AP</b>	mol H <sup>+</sup> eq.	2,28E-04	3,58E-06	7,87E-05	1,31E-04	0,00E+00	-5,23E-03
<b>EP-freshwater</b>	kg P eq.	3,66E-07	1,40E-09	1,94E-07	2,81E-07	0,00E+00	-7,09E-05
<b>EP-marine</b>	kg N eq.	1,00E-04	1,66E-06	2,62E-05	5,19E-05	0,00E+00	-1,17E-03
<b>EP-terrestrial</b>	mol N eq.	1,08E-03	1,82E-05	2,89E-04	5,72E-04	0,00E+00	-1,45E-02
<b>POCP</b>	kg NMVOC eq.	3,19E-04	5,42E-06	1,23E-04	1,90E-04	0,00E+00	-4,65E-03
<b>ADP-minerals&amp;metals*</b>	kg Sb eq.	9,30E-08	1,42E-10	8,05E-08	5,33E-08	0,00E+00	-4,83E-08
<b>ADP-fossil*</b>	MJ	4,62E-01	5,19E-03	3,53E-01	3,63E-01	0,00E+00	-2,07E+01
<b>WDP*</b>	m <sup>3</sup>	3,55E-03	1,12E-05	1,45E-03	8,32E-03	0,00E+00	-1,77E-01
<b>GWP-GHG<sup>4</sup></b>	kg CO <sub>2</sub> eq.	3,87E-02	3,97E-04	2,52E-02	2,16E-02	0,00E+00	-1,43E+00
Acronyms	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, GWP-GHG: Global Warming Potential for Greenhouse Gases						

<sup>4</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero.

*Disclaimer: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.*

*The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).*

*Note: Biogenic carbon in packaging is balanced in A1–A3.)*

*\* Disclaimer: 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.*

## ABBREVIATIONS

All abbreviations used in the EPD must be added. Please add all the abbreviations used.

Abbreviation	Definition
<b>General Abbreviations</b>	
EN	European Norm (Standard)
EPD	Environmental Product Declaration
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
PCR	Product Category Rules
c-PCR	Complementary Product Category Rules
CEN	European Committee for Standardization
CPC	Central product classification
GHG	Greenhouse Gas
PEF	Product Environmental Footprint
<b>Environmental Impact Indicators (EN 15804)</b>	
GHG	Greenhouse Gas
GWP	Global Warming Potential (kg CO <sub>2</sub> eq.)
GWP-fossil	Global Warming Potential from fossil sources (kg CO <sub>2</sub> eq.)
GWP-biogenic	Global Warming Potential from biogenic sources (kg CO <sub>2</sub> eq.)
GWP-luluc	Global Warming Potential from land use and land use change (kg CO <sub>2</sub> eq.)
GWP-total	Total Global Warming Potential (kg CO <sub>2</sub> eq.)
GWP-GHG	Global Warming Potential for greenhouse gases (kg CO <sub>2</sub> eq.)
ODP	Ozone Depletion Potential (kg CFC-11 eq.)
AP	Acidification Potential (mol H <sup>+</sup> eq.)
EP	Eutrophication Potential
EP-freshwater	Freshwater eutrophication potential (kg P eq.)
EP-marine	Marine eutrophication potential (kg N eq.)
EP-terrestrial	Terrestrial eutrophication potential (mol N eq.)
POCP	Photochemical Ozone Creation Potential (kg NMVOC eq.)
ADP	Abiotic Depletion Potential
ADP-minerals&metals	Abiotic depletion potential for non-fossil resources (kg Sb eq.)
ADP-fossil	Abiotic depletion potential for fossil resources (MJ)
WDP	Water Deprivation Potential (m <sup>3</sup> )
<b>Resource Use Indicators</b>	
PERE	Renewable primary energy (excluding as raw materials) (MJ)
PERM	Renewable primary energy used as raw materials (MJ)
PERT	Total renewable primary energy (MJ)
PENRE	Non-renewable primary energy (excluding as raw materials) (MJ)
PENRM	Non-renewable primary energy used as raw materials (MJ)
PENRT	Total non-renewable primary energy (MJ)
SM	Use of secondary material (kg)
RSF	Use of renewable secondary fuels (MJ)
NRSF	Use of non-renewable secondary fuels (MJ)
FW	Use of net fresh water (m <sup>3</sup> )
HW	Hazardous Waste (disposed) (kg)
NHW	Non-Hazardous Waste (disposed) (kg)
RW	Radioactive Waste (disposed) (kg)
<b>Output Flow Indicators</b>	
CFR	Components for Reuse (kg)
MR	Material for Recycling (kg)
MER	Materials for Energy Recovery (kg)
EEE	Exported Energy, Electricity (MJ)

EET	Exported Energy, Thermal (MJ)
<b>Lifecycle Stages / Modules</b>	
A1	Raw material supply
A2	Transport
A3	Manufacturing
A4	Transport to site
A5	Construction/Installation
B1	Use
B2	Maintenance
B3	Repair
B4	Replacement
B5	Refurbishment
B6	Operational energy use
B7	Operational water use
C1	Deconstruction/Demolition
C2	Transport to waste processing
C3	Waste processing
C4	Disposal
D	Reuse-Recovery-Recycling potential
<b>Other Relevant Terms</b>	
SVHC	Substances of Very High Concern
EC No.	European Community Number
CAS No.	Chemical Abstracts Service Number
MJ	Megajoule
kg	Kilogram
m <sup>3</sup>	Cubic Meter
NM VOC	Non-Methane Volatile Organic Compounds
Sb eq.	Antimony Equivalents
P eq.	Phosphorus Equivalents
N eq.	Nitrogen Equivalents
CFC-11 eq.	Chlorofluorocarbon-11 Equivalents
CO <sub>2</sub> eq.	Carbon Dioxide Equivalents
kg C	Kilograms of Carbon
kg CO <sub>2</sub> eq.	Kilograms of Carbon Dioxide Equivalent
ND	Not Declared
PE	Polyethylene

## REFERENCES

General Programme Instructions of International EPD System. Version 5.0.1

PCR 2019:14. Construction products. Version 2.0.1

ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures.

EN 15804:2012+A2:2019/AC:2021

Life Cycle Assessment of Steel Profiles by Europrofil AB, Miljögiraff, 2025

## VERSION HISTORY

Original Version of the EPD



# Environmental Product Declaration



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

## Steel Profiles with Dry Joint Sealant

from

### **Europrofil AB**

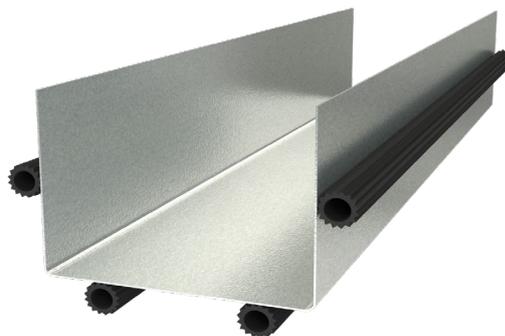
EPD of multiple products, based on a representative product UT-skena med torr fogtätning

## **EUROPROFIL**

Solutions of steel

Programme:	The International EPD System, <a href="http://www.environdec.com">www.environdec.com</a>
Programme operator:	EPD International AB
Type of EPD:	EPD of multiple products from a company
EPD registration number:	EPD-IES-0024833
Version date:	2025-08-12
Validity date:	2030-08-11

*An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see [www.environdec.com](http://www.environdec.com)*



*This EPD covers multiple products: UT-skena med torr fogtätning; LIT-Hörnregel med tätning*

## GENERAL INFORMATION

Programme Information	
<b>Programme:</b>	The International EPD® System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
<b>E-mail:</b>	<a href="mailto:support@environdec.com">support@environdec.com</a>

Product Category Rules (PCR)
<b>CEN standard EN 15804 serves as the Core Product Category Rules (PCR)</b>
<b>Product Category Rules (PCR):</b> <i>Construction products 2019:14, version 2.0.1, valid until 2030-04-07, UN CPC code: 4219</i>
<b>PCR review was conducted by:</b> <i>The Technical Committee of the International EPD® System. See <a href="http://www.environdec.com">www.environdec.com</a> for a list of members. Review chair: Rob Rouwette (chair), Noa Meron (cochair). The review panel may be contacted via the Secretariat <a href="http://www.environdec.com/contact">www.environdec.com/contact</a></i>

Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:
<input checked="" type="checkbox"/> <b>Individual EPD verification without a pre-verified LCA/EPD tool</b> Third-party verifier: <i>Hüdai Kara PhD, Metsims Sustainability Consulting, Oxford, U.K.</i> Approved by: International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

## INFORMATION ABOUT EPD OWNER

Owner of the EPD: Europrofil AB

Address: Pershyttans Ind.Omr., 713 91 Nora, Sweden

Contact: Adam Almgren ([adam.almgren@europrofil.se](mailto:adam.almgren@europrofil.se))

Address and contact information of the LCA practitioners commissioned by the EPD owner:

Miljögiraff AB

Bläsgatan 2, 414 63 Göteborg, Sweden

Hanna Andréasson ([hannaandreasson@miljogiraff.se](mailto:hannaandreasson@miljogiraff.se))

Oline Haggren ([oline@miljogiraff.se](mailto:oline@miljogiraff.se))

Description of the organisation: Europrofil is the leading Nordic specialist in sustainable steel building systems. From the production in Nora, in the heart of the Swedish Bergslagen region, they deliver smart steel solutions that make working days easier and contribute to a more efficient and sustainable construction industry.

The business was founded in 1982 and has been part of the Danish group Ib Andresen Industri A/S since 2006. In 2024, the group was acquired by Wegener GMBH. Together, they have a strong network that guarantees a high level of precision and safety in our deliveries.

As the leading specialists in the Nordic region, their vision is to develop the construction industry through sustainable steel building systems.

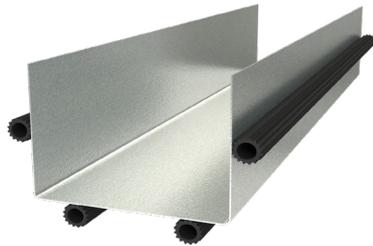
Product-related or management system-related certifications: ISO 9001- and 14001; EN 14195:2005; EN 1090-1:2009+A1:2011

## PRODUCT INFORMATION

Product name: UT-skena med torr fogtätning (representative product)

Product identification: All products included are Steel Profiles with Dry Joint Sealant. These are: UT-skena med torr fogtätning & LIT-Hörnregel med tätning.

Visual representation of the representative product:



UN CPC code: 4219

Product description: Europrofil's Steel Profiles are metal profiles for dry walls, false ceiling and façade system construction. Products are available in different dimensions and weights.

Name and location of production site(s): All included product are produced at Europrofil AB, Industrivägen 9, 713 30 Nora, Sweden.

Multiple products: All products included in this EPD are Steel profiles with Rubber additive. For this product group, two products are included. Each product has the same type of composition, where only the sheet thickness and dimensions of some products differs. The steel profiles also share the same geographical scope and production site. The steel profile "UT-skena med torr fogtätning" was chosen as representative product as it is the most sold of all the products in this product group. Since the products only consist of 1 material and due to the fact that the declared unit is 1 kg of product, there will be no difference in the result for the included products of this group in the EPD.

The variation in dimension of the included products in this EPD are shown below.

Product name	Sheet thickness (mm)	Dimension (mm)
UT-skena med torr fogtätning	0,46	45–120
LIT-Hörnregel med tätning	0,46	50

## Content declaration of UT-skena med torr fogtätning

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/ declared unit
Steel	0,93	2,7%	0%	0
Rubber	0,06	0%	0%	0
Glue	0,01	0%	0	0
TOTAL	1	2,5%	0%	0

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg C/declared unit
Wood pallet	0,89	89%	0,4
Plastic PE straps	0,0011	0,1%	0,0
TOTAL	0,8911	89,11%	0,4

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO<sub>2</sub>.

Hazardous substances from the candidate list of SVHC	EC No.	CAS No.	Mass-% per declared unit
-	-	-	0%

## LCA INFORMATION

### Declared unit:

1 kg Steel Profile. Conversion factor for the product is 1 kg per kg

### Reference service life:

Not applicable

### Time representativeness:

The collected data is representative of the year 2024 and was obtained directly from the supplier.

### Geographical scope:

The suppliers of raw material A1 are from Europe and the transport A2 is modelled for Europe. The manufacturing in module A3 is located in Sweden. Module C and D scenarios are modelled for Sweden.

### Database(s) and LCA software used:

Ecoinvent 3.10 and SimaPro Craft 10.1.

LCIA method:

The LCIA method follows the standard for Construction Products EN 15804:2012+A2:2019/AC:2021. EN 15804:2012+A2:2019/AC:2021 uses the impact categories and characterization factors of the LCIA methods used in Environmental Footprint 3.1 (EF 3.1), with the only difference that biogenic carbon dioxide uptake is calculated as -1 and biogenic carbon dioxide emissions as +1, where EF 3.1 calculates this as 0 and 0, respectively.

Cut-off criteria:

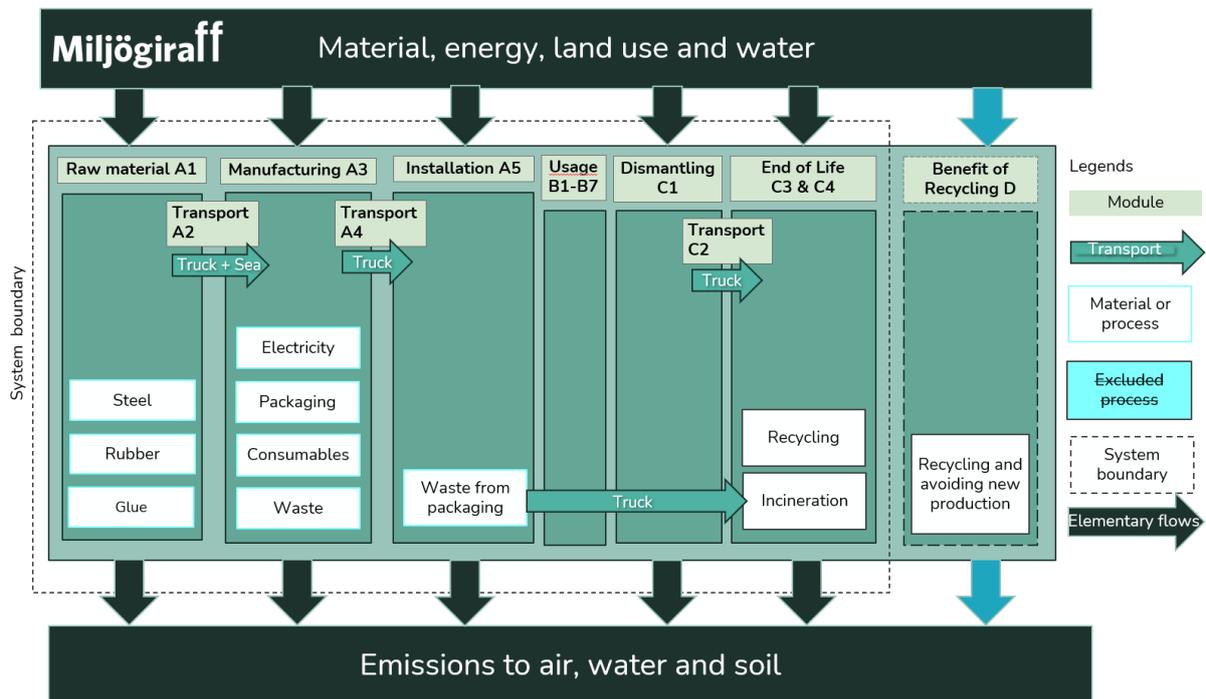
The cut-off criteria established by the PCR is 1% of all material and energy flows to a single unit process and 5% of total inflows (mass and energy) per module. No cut-offs exceeding this limit have been made.

In this study, the infrastructure and capital goods are included in the LCA analysis since it is not possible within reasonable effort to subtract the data on infrastructure/capital goods.

Description of system boundaries:

Cradle to gate with options, modules C1–C4, module D and with optional modules (A1–A3 + C + D and A4-A5 and B1-B7). However, since the product is a passive product, there will be no environmental impact during this phase.

Process flow diagram:



More information:

(A1-A2) The steel used in the Europrofil AB's steel profiles is from Europe and has an EPD. The steel is transported, by truck and sea, to a steel service centre in Sweden where it is cut before further transport by truck to Europrofil in Nora. The raw materials for the additives come from Swedish suppliers and are transported by truck to Europrofil in Nora.

(A3) Europrofil AB's manufacturing takes place in Nora, Sweden, where the cut steel is folded and cut, and in the same line adding the additives EPDM rubber with hot melt glue. During this process, electricity is used which also accounts for the cutting happening at the steel service centre. There is also production waste, including materials both for recycling and incineration. The finished products are packaged on wood pallets before distributed to customer.

The electricity mix for Europrofil's manufacturing has been modelled using the residual electricity mix for Sweden. This is represented using the ecoinvent dataset "*Electricity, medium voltage {SE} electricity, medium voltage, residual mix | Cut-off, U*". The climate footprint of the electricity mix is 0,0142 kg CO<sub>2</sub>-eq per kWh.

Allocation of specific data was done for the manufacturing processes in the A3 module. All the data was obtained per year and allocated by mass of total yearly production to per kg steel profile.

(A4) The finished products are transported 126 km by diesel trucks. This is represented by the ecoinvent dataset "*Transport, freight, lorry 16-32 metric ton, EURO6 {RER} transport, freight, lorry 16-32 metric ton, EURO6 | Cut-off, U*".

(A5) Installation of the product is assumed to occur in a way that has no environmental impact, e.g. by hand. What is considered for the installation is the waste treatment of the packaging materials that comes with the product, which follows the end-of-life treatment in module C.

(B1-B7) It is assumed that there are no significant environmental aspects during the installation or use of the product.

(C1-C4) After use the product is transported to waste processing. In the C module, default values provided by the PCR 2019:14 v.2.0.1 were used for demolition/deconstruction (C1) as no specific data was obtained. The default values for transport distances to waste treatment (C2) were also used, 80 km for materials not to be incinerated and 130 km for materials to be incinerated. The transport is modelled using the ecoinvent 3.10 dataset "*Transport, freight, lorry 16-32 metric ton, EURO5 {RER} transport, freight, lorry 16-32 metric ton, EURO5 | Cut-off, U*".

Since the majority of customers exists in Sweden, the relevant end-of-life scenario has been represented with a Swedish case. As this scenario is a mix of recycling and incineration, a 100% scenario for each waste scenario will also be declared as per PCR rules. The results for the 100% scenarios can be found in "Additional LCA results".

For the waste treatment (C3), the steel is recycled with an 85% collection and recovery rate according to recycling rates (R2) used in the Circular footprint formula of PEF, as found in Annex C2. The environmental impact from recycling is not considered following the cut-off approach applied. The remaining waste is assumed to be incinerated, approximately 100%, according to the Swedish average scenario stated in PEF Annex C.

(D) Module D accounts for the potential environmental benefits or burdens resulting from material recycling and energy recovery during incineration.

#### Data quality summary according to EN 15491

The EPD is based on data collected by Europrofil AB from their site in Nora, Sweden over one year from 2024. The EPD is representative of the production of Steel Profiles with Dry Joint Sealant

produced in Nora, Sweden and data are collected directly from supplier and production site. The end-of-life stage of the EPD covers Sweden. The EPD uses background data from the Ecoinvent database v3.10, 2017-2023, and EPD data for the input material steel. The quality of the relevant data used for the EPD in terms of its time, geography and technology representativeness using EN 15804:2012+A2:2019, Annex E, E.1 is very good or good. The relevant data assessed included no other poor or very poor data.

Modules declared, geographical scope, share of primary data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage	
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal		
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	EUR	EUR	SE	EUR	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	
Share of primary data	66,9%			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Declaration of data sources, reference years, data categories, and share of primary data:

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3
A1 Raw material - Steel	EPD	EPD (confidential)	2021	Primary data	61,47%
Transport of raw materials in A2	Databases	Ecoinvent v3.10	2018-2022	Primary data	1,8%
Waste treatment in A3	Collected data	EPD Owner	2024	Primary data	3,64%
Manufacturing processes in A3 (contributing to less than 10% of GWP-GHG)	Database	Ecoinvent v3.10	2017-2023	Secondary data	0%
Other processes (A1-A3)	Database	Ecoinvent v3.10	2018-2023	Secondary data	0%
Total share of primary data, of GWP-GHG results for A1-A3					66,9%

## ENVIRONMENTAL PERFORMANCE

### LCA results of the product - main environmental performance results

#### Mandatory impact category indicators according to EN 15804, per 1 kg Steel Profile

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
<b>GWP-total</b>	kg CO <sub>2</sub> eq.	2,40E+00	4,53E-02	1,03E-01	0,00E+00	3,97E-04	1,75E-02	2,27E-01	0,00E+00	-1,35E+00
<b>GWP-fossil</b>	kg CO <sub>2</sub> eq.	2,47E+00	4,52E-02	3,75E-02	0,00E+00	3,97E-04	1,75E-02	2,27E-01	0,00E+00	-1,34E+00
<b>GWP-biogenic</b>	kg CO <sub>2</sub> eq.	-6,42E-02	3,13E-05	6,57E-02	0,00E+00	4,34E-08	1,20E-05	3,20E-05	0,00E+00	2,74E-03
<b>GWP-luluc</b>	kg CO <sub>2</sub> eq.	8,79E-04	1,50E-05	1,02E-05	0,00E+00	3,45E-08	5,72E-06	3,20E-06	0,00E+00	-6,32E-03
<b>ODP</b>	kg CFC 11 eq.	1,12E-08	9,00E-10	6,48E-10	0,00E+00	6,07E-12	3,48E-10	1,73E-10	0,00E+00	-1,08E-08
<b>AP</b>	mol H <sup>+</sup> eq.	6,25E-03	9,42E-05	2,28E-04	0,00E+00	3,58E-06	5,48E-05	7,53E-05	0,00E+00	-5,01E-03
<b>EP-freshwater</b>	kg P eq.	1,23E-05	3,53E-07	3,66E-07	0,00E+00	1,40E-09	1,35E-07	9,89E-08	0,00E+00	-6,71E-05
<b>EP-marine</b>	kg N eq.	1,84E-03	2,21E-05	9,99E-05	0,00E+00	1,66E-06	1,82E-05	3,13E-05	0,00E+00	-1,13E-03
<b>EP-terrestrial</b>	mol N eq.	1,84E-02	2,44E-04	1,07E-03	0,00E+00	1,82E-05	2,01E-04	3,45E-04	0,00E+00	-1,40E-02
<b>POCP</b>	kg NMVOC eq.	5,68E-03	1,57E-04	3,19E-04	0,00E+00	5,42E-06	8,58E-05	1,00E-04	0,00E+00	-4,44E-03
<b>ADP-minerals&amp;metals*</b>	kg Sb eq.	5,88E-05	1,47E-07	9,29E-08	0,00E+00	1,42E-10	5,60E-08	1,82E-08	0,00E+00	-1,68E-07
<b>ADP-fossil*</b>	MJ	3,51E+01	6,36E-01	4,62E-01	0,00E+00	5,19E-03	2,46E-01	1,42E-01	0,00E+00	-2,06E+01
<b>WDP*</b>	m <sup>3</sup>	3,72E-01	2,64E-03	3,55E-03	0,00E+00	1,12E-05	1,01E-03	8,39E-04	0,00E+00	-1,82E-01

**Acronyms**  
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

*Disclaimer: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.*

*The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).*

*Note: Biogenic carbon in packaging is balanced in A1–A3.*

*\* Disclaimer: 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 mandatory and voluntary impact category indicators

### Results per 1 kg Steel Profile

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
<b>GWP-GHG<sup>1</sup></b>	kg CO <sub>2</sub> eq.	2,47E+00	4,53E-02	3,75E-02	0,00E+00	3,97E-04	1,75E-02	2,27E-01	0,00E+00	-1,35E+00
<b>PM</b>	disease inc.	2,87E-08	3,32E-09	3,80E-09	0,00E+00	1,02E-10	1,37E-09	1,47E-09	0,00E+00	-9,97E-08
<b>IR<sup>2</sup></b>	kBq U-235 eq	2,93E-02	2,94E-04	1,02E-03	0,00E+00	9,04E-07	1,12E-04	9,68E-04	0,00E+00	-2,61E-01
<b>ETP – FW*</b>	CTUe	2,55E+00	1,73E-01	2,45E-01	0,00E+00	7,36E-04	6,60E-02	4,27E-01	0,00E+00	-1,09E+02
<b>HTP – C*</b>	CTUh	2,32E-09	3,21E-10	3,92E-10	0,00E+00	1,55E-12	1,22E-10	8,03E-11	0,00E+00	-4,12E-07
<b>HTP – NC*</b>	CTUh	4,60E-09	4,00E-10	1,63E-09	0,00E+00	6,42E-13	1,53E-10	9,12E-11	0,00E+00	-5,86E-09
<b>Land use, SQP*</b>	Pt	1,05E+01	3,84E-01	2,22E-01	0,00E+00	3,65E-04	1,46E-01	6,89E-02	0,00E+00	-1,43E+01
Acronyms	GWP-GHG: Global Warming Potential, Greenhouse Gases, PM: Particulate Matter, IRP: Ionizing Radiation - Human Health, ETP-FW: Ecotoxicity Potential – Freshwater, HTP-C: Human Toxicity Potential – Cancer, HTP-NC: Human Toxicity Potential – Non-Cancer, SQP: Soil Quality Potential Index									

*Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017*

*Disclaimer: The results of the impact categories land use, human toxicity (cancer), human toxicity, non-cancer and ecotoxicity (freshwater) may be highly uncertain in LCAs that include capital goods/infrastructure in generic datasets, in case infrastructure/capital goods contribute greatly to the total results. This is because the LCI data of infrastructure/capital goods used to quantify these indicators in currently available generic datasets sometimes lack temporal, technological and geographical representativeness. Caution should be exercised when using the results of these indicators for decision-making purposes.*

*\* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*

<sup>1</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero.

<sup>2</sup> 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 indicators

Results per 1 kg Steel Profile										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
PERE	MJ	3,53E+00	1,09E-02	1,11E-02	0,00E+00	3,19E-05	4,17E-03	5,40E-03	0,00E+00	-8,07E+00
PERM	MJ	1,70E+01	0,00E+00	-1,70E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,05E+01	1,09E-02	-1,70E+01	0,00E+00	3,19E-05	4,17E-03	5,40E-03	0,00E+00	-8,07E+00
PENRE	MJ	3,34E+01	6,77E-01	4,92E-01	0,00E+00	5,52E-03	2,62E-01	1,50E-01	0,00E+00	-2,14E+01
PENRM	MJ	2,28E+00	0,00E+00	-3,32E-02	0,00E+00	0,00E+00	0,00E+00	-2,24E+00	0,00E+00	0,00E+00
PENRT	MJ	3,57E+01	6,77E-01	4,59E-01	0,00E+00	5,52E-03	2,62E-01	-2,09E+00	0,00E+00	-2,14E+01
SM	kg	2,51E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m <sup>3</sup>	1,13E-02	9,57E-05	2,69E-04	0,00E+00	3,66E-07	3,65E-05	3,55E-04	0,00E+00	-6,53E-03
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water									

## Waste indicators

Results per 1 kg Steel Profile										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	2,25E-06	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Non-hazardous waste disposed	kg	7,02E-02	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Radioactive waste disposed	kg	6,50E-04	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

## Output flow indicators

Results per 1 kg Steel Profile										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Material for recycling	kg	0,02	0,00	0,00	0,00	0,00	0,00	0,79	0,00	0,00
Materials for energy recovery	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Exported energy, electricity	MJ	0,02	0,00	4,08	0,00	0,00	0,00	0,54	0,00	0,00
Exported energy, thermal	MJ	0,04	0,00	9,51	0,00	0,00	0,00	1,26	0,00	0,00

## Additional LCA results (other environmental performance results) of the product(s)

### 100% Recycling Scenario for modules A5, C1-C4 & D

#### Mandatory impact category indicators according to EN 15804, per 1 kg Steel Profile

Indicator	Unit	A5	C1	C2	C3	C4	D
<b>GWP-total</b>	kg CO <sub>2</sub> eq.	-1,22E+00	3,97E-04	1,55E-02	3,43E-03	0,00E+00	-1,35E+00
<b>GWP-fossil</b>	kg CO <sub>2</sub> eq.	1,60E-02	3,97E-04	1,55E-02	3,43E-03	0,00E+00	-1,34E+00
<b>GWP-biogenic</b>	kg CO <sub>2</sub> eq.	-1,24E+00	4,34E-08	1,06E-05	2,35E-06	0,00E+00	2,74E-03
<b>GWP-luluc</b>	kg CO <sub>2</sub> eq.	5,47E-06	3,45E-08	5,06E-06	1,14E-06	0,00E+00	-6,32E-03
<b>ODP</b>	kg CFC 11 eq.	3,12E-10	6,07E-12	3,08E-10	5,57E-11	0,00E+00	-1,08E-08
<b>AP</b>	mol H <sup>+</sup> eq.	6,29E-05	3,58E-06	4,84E-05	3,07E-05	0,00E+00	-5,01E-03
<b>EP-freshwater</b>	kg P eq.	1,17E-07	1,40E-09	1,19E-07	1,48E-08	0,00E+00	-6,71E-05
<b>EP-marine</b>	kg N eq.	2,34E-05	1,66E-06	1,61E-05	1,41E-05	0,00E+00	-1,13E-03
<b>EP-terrestrial</b>	mol N eq.	2,57E-04	1,82E-05	1,78E-04	1,55E-04	0,00E+00	-1,40E-02
<b>POCP</b>	kg NMVOC eq.	9,70E-05	5,42E-06	7,59E-05	4,60E-05	0,00E+00	-4,44E-03
<b>ADP-minerals&amp;metals*</b>	kg Sb eq.	4,61E-08	1,42E-10	4,95E-08	2,43E-09	0,00E+00	-1,68E-07
<b>ADP-fossil*</b>	MJ	2,44E-01	5,19E-03	2,17E-01	6,87E-02	0,00E+00	-2,06E+01
<b>WDP*</b>	m <sup>3</sup>	1,09E-03	1,12E-05	8,91E-04	3,59E-04	0,00E+00	-1,82E-01
<b>GWP-GHG<sup>3</sup></b>	kg CO <sub>2</sub> eq.	1,60E-02	3,97E-04	1,55E-02	3,43E-03	0,00E+00	-1,35E+00
<b>Acronyms</b>	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, GWP-GHG: Global Warming Potential for Greenhouse Gases						

*Disclaimer: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.*

*The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules*

<sup>3</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero.

A1-A3).

Note: Biogenic carbon in packaging is balanced in A1–A3.)

\* Disclaimer: 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.

## 100% Incineration Scenario for modules A5, C1-C4 & D

### Mandatory impact category indicators according to EN 15804, per 1 kg Steel Profile

Indicator	Unit	A5	C1	C2	C3	C4	D
<b>GWP-total</b>	kg CO <sub>2</sub> eq.	1,04E-01	3,97E-04	2,52E-02	2,41E-01	0,00E+00	-1,35E+00
<b>GWP-fossil</b>	kg CO <sub>2</sub> eq.	3,87E-02	3,97E-04	2,52E-02	2,41E-01	0,00E+00	-1,34E+00
<b>GWP-biogenic</b>	kg CO <sub>2</sub> eq.	6,57E-02	4,34E-08	1,72E-05	4,73E-05	0,00E+00	2,74E-03
<b>GWP-luluc</b>	kg CO <sub>2</sub> eq.	1,02E-05	3,45E-08	8,22E-06	9,48E-06	0,00E+00	-6,32E-03
<b>ODP</b>	kg CFC 11 eq.	6,48E-10	6,07E-12	5,00E-10	4,63E-10	0,00E+00	-1,08E-08
<b>AP</b>	mol H <sup>+</sup> eq.	2,28E-04	3,58E-06	7,87E-05	1,55E-04	0,00E+00	-5,01E-03
<b>EP-freshwater</b>	kg P eq.	3,66E-07	1,40E-09	1,94E-07	3,09E-07	0,00E+00	-6,71E-05
<b>EP-marine</b>	kg N eq.	1,00E-04	1,66E-06	2,62E-05	6,12E-05	0,00E+00	-1,13E-03
<b>EP-terrestrial</b>	mol N eq.	1,08E-03	1,82E-05	2,89E-04	6,75E-04	0,00E+00	-1,40E-02
<b>POCP</b>	kg NMVOC eq.	3,19E-04	5,42E-06	1,23E-04	2,14E-04	0,00E+00	-4,44E-03
<b>ADP-minerals&amp;metals*</b>	kg Sb eq.	9,30E-08	1,42E-10	8,05E-08	5,85E-08	0,00E+00	-1,68E-07
<b>ADP-fossil*</b>	MJ	4,62E-01	5,19E-03	3,53E-01	3,74E-01	0,00E+00	-2,06E+01
<b>WDP*</b>	m <sup>3</sup>	3,55E-03	1,12E-05	1,45E-03	7,13E-03	0,00E+00	-1,82E-01
<b>GWP-GHG<sup>4</sup></b>	kg CO <sub>2</sub> eq.	3,87E-02	3,97E-04	2,52E-02	2,41E-01	0,00E+00	-1,35E+00
Acronyms	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, GWP-GHG: Global Warming Potential for Greenhouse Gases						

Disclaimer: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

<sup>4</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero.

*The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).*

*Note: Biogenic carbon in packaging is balanced in A1–A3.)*

*\* Disclaimer: 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.*

## ABBREVIATIONS

All abbreviations used in the EPD must be added. Please add all the abbreviations used.

Abbreviation	Definition
<b>General Abbreviations</b>	
EN	European Norm (Standard)
EPD	Environmental Product Declaration
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
PCR	Product Category Rules
c-PCR	Complementary Product Category Rules
CEN	European Committee for Standardization
CPC	Central product classification
GHG	Greenhouse Gas
PEF	Product Environmental Footprint
<b>Environmental Impact Indicators (EN 15804)</b>	
GHG	Greenhouse Gas
GWP	Global Warming Potential (kg CO <sub>2</sub> eq.)
GWP-fossil	Global Warming Potential from fossil sources (kg CO <sub>2</sub> eq.)
GWP-biogenic	Global Warming Potential from biogenic sources (kg CO <sub>2</sub> eq.)
GWP-luluc	Global Warming Potential from land use and land use change (kg CO <sub>2</sub> eq.)
GWP-total	Total Global Warming Potential (kg CO <sub>2</sub> eq.)
GWP-GHG	Global Warming Potential for greenhouse gases (kg CO <sub>2</sub> eq.)
ODP	Ozone Depletion Potential (kg CFC-11 eq.)
AP	Acidification Potential (mol H <sup>+</sup> eq.)
EP	Eutrophication Potential
EP-freshwater	Freshwater eutrophication potential (kg P eq.)
EP-marine	Marine eutrophication potential (kg N eq.)
EP-terrestrial	Terrestrial eutrophication potential (mol N eq.)
POCP	Photochemical Ozone Creation Potential (kg NMVOC eq.)
ADP	Abiotic Depletion Potential
ADP-minerals&metals	Abiotic depletion potential for non-fossil resources (kg Sb eq.)
ADP-fossil	Abiotic depletion potential for fossil resources (MJ)
WDP	Water Deprivation Potential (m <sup>3</sup> )
<b>Resource Use Indicators</b>	
PERE	Renewable primary energy (excluding as raw materials) (MJ)
PERM	Renewable primary energy used as raw materials (MJ)
PERT	Total renewable primary energy (MJ)
PENRE	Non-renewable primary energy (excluding as raw materials) (MJ)
PENRM	Non-renewable primary energy used as raw materials (MJ)
PENRT	Total non-renewable primary energy (MJ)
SM	Use of secondary material (kg)
RSF	Use of renewable secondary fuels (MJ)
NRSF	Use of non-renewable secondary fuels (MJ)
FW	Use of net fresh water (m <sup>3</sup> )
HW	Hazardous Waste (disposed) (kg)
NHW	Non-Hazardous Waste (disposed) (kg)
RW	Radioactive Waste (disposed) (kg)
<b>Output Flow Indicators</b>	
CFR	Components for Reuse (kg)
MR	Material for Recycling (kg)
MER	Materials for Energy Recovery (kg)
EEE	Exported Energy, Electricity (MJ)

EET	Exported Energy, Thermal (MJ)
<b>Lifecycle Stages / Modules</b>	
A1	Raw material supply
A2	Transport
A3	Manufacturing
A4	Transport to site
A5	Construction/Installation
B1	Use
B2	Maintenance
B3	Repair
B4	Replacement
B5	Refurbishment
B6	Operational energy use
B7	Operational water use
C1	Deconstruction/Demolition
C2	Transport to waste processing
C3	Waste processing
C4	Disposal
D	Reuse-Recovery-Recycling potential
<b>Other Relevant Terms</b>	
SVHC	Substances of Very High Concern
EC No.	European Community Number
CAS No.	Chemical Abstracts Service Number
MJ	Megajoule
kg	Kilogram
m <sup>3</sup>	Cubic Meter
NMVOG	Non-Methane Volatile Organic Compounds
Sb eq.	Antimony Equivalents
P eq.	Phosphorus Equivalents
N eq.	Nitrogen Equivalents
CFC-11 eq.	Chlorofluorocarbon-11 Equivalents
CO <sub>2</sub> eq.	Carbon Dioxide Equivalents
kg C	Kilograms of Carbon
kg CO <sub>2</sub> eq.	Kilograms of Carbon Dioxide Equivalent
ND	Not Declared
PE	Polyethylene

## REFERENCES

General Programme Instructions of International EPD System. Version 5.0.1

PCR 2019:14. Construction products. Version 2.0.1

ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures.

EN 15804:2012+A2:2019/AC:2021

Life Cycle Assessment of Steel Profiles by Europrofil AB, Miljögiraff, 2025

## VERSION HISTORY

Original Version of the EPD



# Environmental Product Declaration



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

## Steel Profiles with PE-Cloth Sealant

from

**Europrofil AB**

EPD of multiple products, based on a representative product UEP-Skena med EP-duk

### EUROPROFIL

Solutions of steel

Programme:	The International EPD System, <a href="http://www.environdec.com">www.environdec.com</a>
Programme operator:	EPD International AB
Type of EPD:	EPD of multiple products from a company
EPD registration number:	EPD-IES-0024832
Version date:	2025-08-12
Validity date:	2030-08-11

*An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see [www.environdec.com](http://www.environdec.com)*



*This EPD covers multiple products:*

*UEP-Skena med EP-duk; UHEP Skena med hög fläns och EP-duk; UWEP-Skena wallclick med EP-duk; UYEP-Ytterväggsskena med EPY-duk; FL-ST ZM Fasadläkt för skärmtegel med EP-duk; VFL-EPL ZM Ventilerad fasadläkt med duk; CYEP- Ytterregel med EPY-duk.*

## GENERAL INFORMATION

Programme Information	
<b>Programme:</b>	The International EPD® System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
<b>E-mail:</b>	<a href="mailto:support@environdec.com">support@environdec.com</a>

Product Category Rules (PCR)
<b>CEN standard EN 15804 serves as the Core Product Category Rules (PCR)</b>
<b>Product Category Rules (PCR):</b> <i>Construction products 2019:14, version 2.0.1, valid until 2030-04-07, UN CPC code: 4219</i>
<b>PCR review was conducted by:</b> <i>The Technical Committee of the International EPD® System. See <a href="http://www.environdec.com">www.environdec.com</a> for a list of members. Review chair: Rob Rouwette (chair), Noa Meron (cochair). The review panel may be contacted via the Secretariat <a href="http://www.environdec.com/contact">www.environdec.com/contact</a></i>

Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:
<input checked="" type="checkbox"/> <b>Individual EPD verification without a pre-verified LCA/EPD tool</b> Third-party verifier: <i>Hüdaï Kara PhD, Metsims Sustainability Consulting, Oxford, U.K.</i> Approved by: International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

## INFORMATION ABOUT EPD OWNER

Owner of the EPD: Europrofil AB

Address: Pershyttans Ind.Omr., 713 91 Nora, Sweden

Contact: Adam Almgren (adam.almgren@europrofil.se)

Address and contact information of the LCA practitioners commissioned by the EPD owner:

Miljögiraff AB

Bläsgatan 2, 414 63 Göteborg, Sweden

Hanna Andréasson ([hannaandreasson@miljogiraff.se](mailto:hannaandreasson@miljogiraff.se))

Oline Haggren ([oline@miljogiraff.se](mailto:oline@miljogiraff.se))

Description of the organisation: Europrofil is the leading Nordic specialist in sustainable steel building systems. From the production in Nora, in the heart of the Swedish Bergslagen region, they deliver smart steel solutions that make working days easier and contribute to a more efficient and sustainable construction industry.

The business was founded in 1982 and has been part of the Danish group Ib Andresen Industri A/S since 2006. In 2024, the group was acquired by Wegener GMBH. Together, they have a strong network that guarantees a high level of precision and safety in our deliveries.

As the leading specialists in the Nordic region, their vision is to develop the construction industry through sustainable steel building systems.

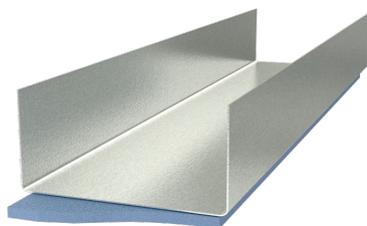
Product-related or management system-related certifications: ISO 9001- and 14001; EN 14195:2005; EN 1090-1:2009+A1:2011

## PRODUCT INFORMATION

Product name: UEP-Skena med EP-duk (representative product)

Product identification: All products included are Steel Profiles with PE-Cloth Sealant. These are: UEP-Skena med EP-duk; UHEP Skena med hög fläns och EP-duk; UWEP-Skena wallclick med EP-duk; UYEP-Ytterväggsskena med EPY-duk; FL-ST ZM Fasadläkt för skärmtegel med EP-duk; VFL-EPL ZM Ventilerad fasadläkt med duk; CYEP- Ytterregel med EPY-duk.

Visual representation of the representative product:



UN CPC code: 4219

Product description: Europrofil's Steel Profiles are metal profiles for dry walls, false ceiling and façade system construction. Products are available in different dimensions and weights.

Name and location of production site(s): All included product are produced at Europrofil AB, Industrivägen 9, 713 30 Nora, Sweden.

Multiple products: All products included in this EPD are Steel profiles with PE-Cloth additive. Eight variations will be included in this product group, and they all consist of steel, PE-cloth and glue. Of these 8 variations, 4 products contain a blue PE-cloth and 4 contain a black PE-cloth. There is also variation of the sheet thickness and dimensions of some products. All steel profiles with PE-Cloth additive share the same geographical scope and production site. The steel profile "UEP-Skena med EP-duk" was chosen as representative product as it is the most sold of all the products in this product group. The deviation of the GWP-GHG value relative to the representative product can be seen in "Additional LCA results", as well as the variation of the environmental impact indicator results for modules A-C between any of the products that exceeds 10%.

The different material composition of the included products in this EPD are shown below.

Products in the group	Steel (kg/product)	PE-cloth (kg/product)	Glue (kg/product)	Total weight (kg/product)
Steel profile with Blue PE-cloth (representative product)	0,96	0,03	0,1	1
Steel profile with Black PE-cloth	0,95	0,04	0,1	1

The variation in thickness and dimensions of the included products in this EPD are shown below.

Product name	Colour PE-cloth	Sheet thickness (mm)	Dimension (mm)
UEP-Skena med EP-duk (representative product)	Blue	0,46	45–160
UHEP Skena med hög fläns och EP-duk	Blue	0,46	45–95
UWEP-Skena wallclick med EP-duk	Blue	0,6	70–95
UYEP-Ytterväggsskena med EPY-duk	Black	1,0 & 1,5	123–250
FL-ST ZM Fasadläkt för skärmtegel med EP-duk	Black	0,7 & 1,0	89
VFL-EPL ZM Ventilerad fasadläkt med duk	Black	0,7 & 1,0	70–120
CYEP-Ytterregel med EPY-duk	Black	1 & 1,5	120–250

## Content declaration of UEP-Skena with EP-duk

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/ declared unit
Steel	0,96	2,7%	0%	0
PE-Cloth	0,03	0%	0%	0
Glue	0,01	0%	0	0
TOTAL	1	2,6%	0%	0

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg C/declared unit
Wood pallet	0,89	89%	0,4
Plastic PE straps	0,0011	0,1%	0,0
TOTAL	0,8911	89,11%	0,4

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO<sub>2</sub>.

Hazardous substances from the candidate list of SVHC	EC No.	CAS No.	Mass-% per declared unit
-	-	-	0%

## LCA INFORMATION

Declared unit:

1 kg Steel Profile. Conversion factor for the product is 1 kg per kg

Reference service life:

Not applicable

Time representativeness:

The collected data is representative of the year 2024 and was obtained directly from the supplier.

Geographical scope:

The suppliers of raw material A1 are from Europe and the transport A2 is modelled for Europe. The manufacturing in module A3 is located in Sweden. Module C and D scenarios are modelled for Sweden.

Database(s) and LCA software used:

Ecoinvent 3.10 and SimaPro Craft 10.1.

LCIA method:

The LCIA method follows the standard for Construction Products EN 15804:2012+A2:2019/AC:2021. EN 15804:2012+A2:2019/AC:2021 uses the impact categories and characterization factors of the LCIA methods used in Environmental Footprint 3.1 (EF 3.1), with the only difference that biogenic carbon dioxide uptake is calculated as -1 and biogenic carbon dioxide emissions as +1, where EF 3.1 calculates this as 0 and 0, respectively.

Cut-off criteria:

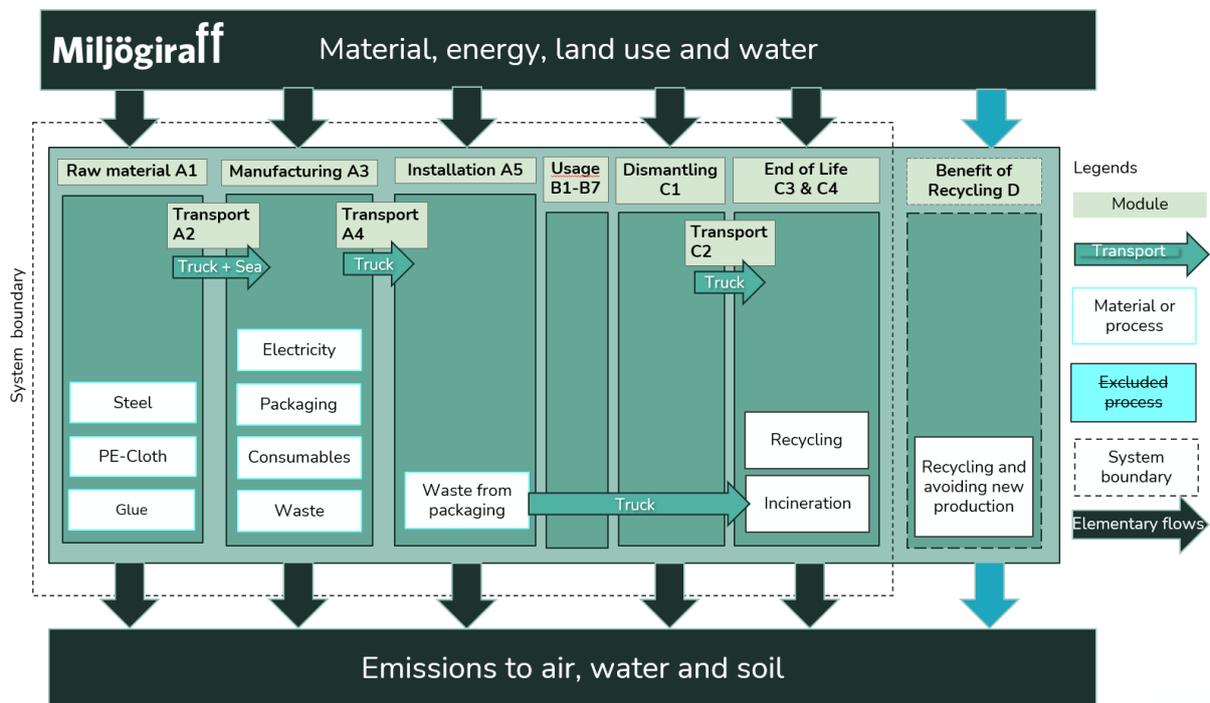
The cut-off criteria established by the PCR is 1% of all material and energy flows to a single unit process and 5% of total inflows (mass and energy) per module. No cut-offs exceeding this limit have been made.

In this study, the infrastructure and capital goods are included in the LCA analysis since it is not possible within reasonable effort to subtract the data on infrastructure/capital goods.

Description of system boundaries:

Cradle to gate with options, modules C1–C4, module D and with optional modules (A1–A3 + C + D and A4-A5 and B1-B7). However, since the product is a passive product, there will be no environmental impact during this phase.

Process flow diagram:



More information:

(A1-A2) The steel used in the Europrofil AB's steel profiles is from Europe and has an EPD. The steel is transported, by truck and sea, to a steel service centre in Sweden where it is cut before further

transport by truck to Europrofil in Nora. The raw materials for the additives come from Swedish suppliers and are transported by truck to Europrofil in Nora.

(A3) Europrofil AB's manufacturing takes place in Nora, Sweden, where the cut steel is folded and cut, and in the same line adding the additives PE-cloth with hot melt glue. During this process, electricity is used which also accounts for the cutting happening at the steel service centre. There is also production waste, including materials both for recycling and incineration. The finished products are packaged on wood pallets before distributed to customer.

The electricity mix for Europrofil's manufacturing has been modelled using the residual electricity mix for Sweden. This is represented using the ecoinvent dataset "*Electricity, medium voltage {SE} electricity, medium voltage, residual mix | Cut-off, U*". The climate footprint of the electricity mix is 0,0142 kg CO<sub>2</sub>-eq per kWh.

Allocation of specific data was done for the manufacturing processes in the A3 module. All the data was obtained per year and allocated by mass of total yearly production to per kg steel profile.

(A4) The finished products are transported 126 km by diesel trucks. This is represented by the ecoinvent dataset "*Transport, freight, lorry 16-32 metric ton, EURO6 {RER} | transport, freight, lorry 16-32 metric ton, EURO6 | Cut-off, U*".

(A5) Installation of the product is assumed to occur in a way that has no environmental impact, e.g. by hand. What is considered for the installation is the waste treatment of the packaging materials that comes with the product, which follows the end-of-life treatment in module C.

(B1-B7) It is assumed that there are no significant environmental aspects during the installation or use of the product.

(C1-C4) After use the product is transported to waste processing. In the C module, default values provided by the PCR 2019:14 v.2.0.1 were used for demolition/deconstruction (C1) as no specific data was obtained. The default values for transport distances to waste treatment (C2) were also used, 80 km for materials not to be incinerated and 130 km for materials to be incinerated. The transport is modelled using the ecoinvent 3.10 dataset "*Transport, freight, lorry 16-32 metric ton, EURO5 {RER} | transport, freight, lorry 16-32 metric ton, EURO5 | Cut-off, U*".

Since the majority of customers exists in Sweden, the relevant end-of-life scenario has been represented with a Swedish case. As this scenario is a mix of recycling and incineration, a 100% scenario for each waste scenario will also be declared as per PCR rules. The results for the 100% scenarios can be found in "Additional LCA results".

For the waste treatment (C3), the steel is recycled with an 85% collection and recovery rate according to recycling rates (R2) used in the Circular footprint formula of PEF, as found in Annex C2. The environmental impact from recycling is not considered following the cut-off approach applied. The remaining waste is assumed to be incinerated, approximately 100%, according to the Swedish average scenario stated in PEF Annex C.

(D) Module D accounts for the potential environmental benefits or burdens resulting from material recycling and energy recovery during incineration.

Data quality summary according to EN 15491

The EPD is based on data collected by Europrofil AB from their site in Nora, Sweden over one year from 2024. The EPD is representative of the production of Steel Profiles with PE-Cloth Sealant produced in Nora, Sweden and data are collected directly from supplier and production site. The end-of-life stage of the EPD covers Sweden. The EPD uses background data from the Ecoinvent database v3.10, 2017-2023, and EPD data for the input material steel. The quality of the relevant data used for the EPD in terms of its time, geography and technology representativeness using EN 15804:2012+A2:2019, Annex E, E.1 is very good or good. The relevant data assessed included no other poor or very poor data.

Modules declared, geographical scope, share of primary data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage	
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal		
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	EUR	EUR	SE	EUR	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	
Share of primary data	69,9%			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0,4%			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Declaration of data sources, reference years, data categories, and share of primary data:

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3
A1 Raw material - Steel	EPD	EPD (confidential)	2021	Primary data	64,6%
Transport of raw materials in A2	Databases	Ecoinvent v3.10	2018-2022	Primary data	1,79%
Waste treatment in A3	Collected data	EPD Owner	2024	Primary data	3,5%
Manufacturing processes in A3 (contributing to less than 10% of GWP-GHG)	Database	Ecoinvent v3.10	2017-2023	Secondary data	0%
Other processes (A1-A3)	Database	Ecoinvent v3.10	2018-2023	Secondary data	0%
Total share of primary data, of GWP-GHG results for A1-A3					69,89%

## ENVIRONMENTAL PERFORMANCE

### LCA results of the product(s) - main environmental performance results

#### Mandatory impact category indicators according to EN 15804, per 1 kg Steel Profile

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
<b>GWP-total</b>	kg CO <sub>2</sub> eq.	2,36E+00	4,53E-02	1,03E-01	0,00E+00	3,97E-04	1,73E-02	1,30E-01	0,00E+00	-1,37E+00
<b>GWP-fossil</b>	kg CO <sub>2</sub> eq.	2,42E+00	4,52E-02	3,75E-02	0,00E+00	3,97E-04	1,73E-02	1,30E-01	0,00E+00	-1,37E+00
<b>GWP-biogenic</b>	kg CO <sub>2</sub> eq.	-6,49E-02	3,13E-05	6,57E-02	0,00E+00	4,34E-08	1,18E-05	1,30E-05	0,00E+00	2,40E-03
<b>GWP-luluc</b>	kg CO <sub>2</sub> eq.	7,98E-04	1,50E-05	1,02E-05	0,00E+00	3,45E-08	5,64E-06	2,45E-06	0,00E+00	-6,00E-03
<b>ODP</b>	kg CFC 11 eq.	8,32E-09	9,00E-10	6,48E-10	0,00E+00	6,07E-12	3,43E-10	1,26E-10	0,00E+00	-9,93E-09
<b>AP</b>	mol H <sup>+</sup> eq.	5,87E-03	9,42E-05	2,28E-04	0,00E+00	3,58E-06	5,40E-05	6,02E-05	0,00E+00	-5,06E-03
<b>EP-freshwater</b>	kg P eq.	8,65E-06	3,53E-07	3,66E-07	0,00E+00	1,40E-09	1,33E-07	6,31E-08	0,00E+00	-6,86E-05
<b>EP-marine</b>	kg N eq.	1,81E-03	2,21E-05	9,99E-05	0,00E+00	1,66E-06	1,80E-05	2,67E-05	0,00E+00	-1,14E-03
<b>EP-terrestrial</b>	mol N eq.	1,80E-02	2,44E-04	1,07E-03	0,00E+00	1,82E-05	1,98E-04	2,94E-04	0,00E+00	-1,41E-02
<b>POCP</b>	kg NMVOC eq.	5,24E-03	1,57E-04	3,19E-04	0,00E+00	5,42E-06	8,46E-05	8,60E-05	0,00E+00	-4,44E-03
<b>ADP-minerals&amp;metals*</b>	kg Sb eq.	5,86E-05	1,47E-07	9,29E-08	0,00E+00	1,42E-10	5,52E-08	1,17E-08	0,00E+00	3,17E-09
<b>ADP-fossil*</b>	MJ	3,33E+01	6,36E-01	4,62E-01	0,00E+00	5,19E-03	2,42E-01	1,20E-01	0,00E+00	-2,01E+01
<b>WDP*</b>	m <sup>3</sup>	3,41E-01	2,64E-03	3,55E-03	0,00E+00	1,12E-05	9,94E-04	1,71E-03	0,00E+00	-1,71E-01

**Acronyms**  
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

*Disclaimer: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.*

*The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).*

*Note: Biogenic carbon in packaging is balanced in A1–A3.*

*\* Disclaimer: 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 mandatory and voluntary impact category indicators

### Results per 1 kg Steel Profile

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
<b>GWP-GHG<sup>1</sup></b>	kg CO <sub>2</sub> eq.	2,42E+00	4,53E-02	3,75E-02	0,00E+00	3,97E-04	1,73E-02	1,30E-01	0,00E+00	-1,37E+00
<b>PM</b>	disease inc.	1,88E-08	3,32E-09	3,80E-09	0,00E+00	1,02E-10	1,35E-09	1,39E-09	0,00E+00	-1,01E-07
<b>IR<sup>2</sup></b>	kBq U-235 eq	2,44E-02	2,94E-04	1,02E-03	0,00E+00	9,04E-07	1,11E-04	9,35E-04	0,00E+00	-2,48E-01
<b>ETP – FW*</b>	CTUe	1,50E+00	1,73E-01	2,45E-01	0,00E+00	7,36E-04	6,51E-02	8,37E-02	0,00E+00	-1,12E+02
<b>HTP – C*</b>	CTUh	1,85E-09	3,21E-10	3,92E-10	0,00E+00	1,55E-12	1,21E-10	7,13E-11	0,00E+00	-4,25E-07
<b>HTP – NC*</b>	CTUh	3,48E-09	4,00E-10	1,63E-09	0,00E+00	6,42E-13	1,51E-10	1,44E-10	0,00E+00	-5,75E-09
<b>Land use, SQP*</b>	Pt	9,81E+00	3,84E-01	2,22E-01	0,00E+00	3,65E-04	1,44E-01	6,19E-02	0,00E+00	-1,37E+01
Acronyms	GWP-GHG: Global Warming Potential, Greenhouse Gases, PM: Particulate Matter, IRP: Ionizing Radiation - Human Health, ETP-FW: Ecotoxicity Potential – Freshwater, HTP-C: Human Toxicity Potential – Cancer, HTP-NC: Human Toxicity Potential – Non-Cancer, SQP: Soil Quality Potential Index									

*Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017*

*Disclaimer: The results of the impact categories land use, human toxicity (cancer), human toxicity, non-cancer and ecotoxicity (freshwater) may be highly uncertain in LCAs that include capital goods/infrastructure in generic datasets, in case infrastructure/capital goods contribute greatly to the total results. This is because the LCI data of infrastructure/capital goods used to quantify these indicators in currently available generic datasets sometimes lack temporal, technological and geographical representativeness. Caution should be exercised when using the results of these indicators for decision-making purposes.*

*\* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*

<sup>1</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero.

<sup>2</sup> 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 indicators

Results per 1 kg Steel Profile										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
PERE	MJ	3,38E+00	1,09E-02	1,11E-02	0,00E+00	3,19E-05	4,11E-03	3,91E-03	0,00E+00	-7,66E+00
PERM	MJ	1,70E+01	0,00E+00	-1,70E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,03E+01	1,09E-02	-1,70E+01	0,00E+00	3,19E-05	4,11E-03	3,91E-03	0,00E+00	-7,66E+00
PENRE	MJ	3,24E+01	6,77E-01	4,92E-01	0,00E+00	5,52E-03	2,58E-01	1,26E-01	0,00E+00	-2,09E+01
PENRM	MJ	1,27E+00	0,00E+00	-3,32E-02	0,00E+00	0,00E+00	0,00E+00	-1,24E+00	0,00E+00	0,00E+00
PENRT	MJ	3,37E+01	6,77E-01	4,59E-01	0,00E+00	5,52E-03	2,58E-01	-1,11E+00	0,00E+00	-2,09E+01
SM	kg	2,59E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m <sup>3</sup>	1,12E-02	9,57E-05	2,69E-04	0,00E+00	3,66E-07	3,60E-05	6,64E-05	0,00E+00	-6,52E-03
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water									

## Waste indicators

Results per 1 kg Steel Profile										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	2,32E-06	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Non-hazardous waste disposed	kg	7,25E-02	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Radioactive waste disposed	kg	6,71E-04	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

## Output flow indicators

Results per 1 kg Steel Profile										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Material for recycling	kg	0,00	0,00	0,02	0,02	0,00	0,00	0,00	0,00	0,00
Materials for energy recovery	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Exported energy, electricity	MJ	0,00	0,00	0,01	0,01	0,00	4,08	0,00	0,00	0,00
Exported energy, thermal	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

## Additional LCA results (other environmental performance results) of the product(s)

The deviation of the GWP-GHG value for A1-A3 relative the representative product for the different products included in this EPD can be seen in the table below.

Product	GWP-GHG for A1-A3 (kg CO2 eq)	Difference relative to representative product
Steel profile with Blue PE-cloth (representative product)	2,42	0%
Steel profile with Black PE-cloth	2,43	0,4%

The variation of the environmental impact indicators which differ more than 10% between any of the included products are declared below. The result for the indicator “Climate change – Biogenic” should be interpreted with caution, as this indicator includes both negative (carbon storage) and positive values (emissions). Variation is calculated as the maximum deviation between any of the included products, using absolute values.

Indicator	Variation between products (%)
Climate change - Biogenic	N/A <sup>3</sup>
Ozone depletion	11%

<sup>3</sup> Indicator has not been specifically balanced for the included products.

## 100% Recycling Scenario for modules A5, C1-C4 & D

### Mandatory impact category indicators according to EN 15804, per 1 kg Steel Profile

Indicator	Unit	A5	C1	C2	C3	C4	D
<b>GWP-total</b>	kg CO <sub>2</sub> eq.	-1,22E+00	3,97E-04	1,55E-02	3,43E-03	0,00E+00	-1,37E+00
<b>GWP-fossil</b>	kg CO <sub>2</sub> eq.	1,60E-02	3,97E-04	1,55E-02	3,43E-03	0,00E+00	-1,37E+00
<b>GWP-biogenic</b>	kg CO <sub>2</sub> eq.	-1,24E+00	4,34E-08	1,06E-05	2,35E-06	0,00E+00	2,40E-03
<b>GWP-luluc</b>	kg CO <sub>2</sub> eq.	5,47E-06	3,45E-08	5,06E-06	1,14E-06	0,00E+00	-6,00E-03
<b>ODP</b>	kg CFC 11 eq.	3,12E-10	6,07E-12	3,08E-10	5,57E-11	0,00E+00	-9,93E-09
<b>AP</b>	mol H <sup>+</sup> eq.	6,29E-05	3,58E-06	4,84E-05	3,07E-05	0,00E+00	-5,06E-03
<b>EP-freshwater</b>	kg P eq.	1,17E-07	1,40E-09	1,19E-07	1,48E-08	0,00E+00	-6,86E-05
<b>EP-marine</b>	kg N eq.	2,34E-05	1,66E-06	1,61E-05	1,41E-05	0,00E+00	-1,14E-03
<b>EP-terrestrial</b>	mol N eq.	2,57E-04	1,82E-05	1,78E-04	1,55E-04	0,00E+00	-1,41E-02
<b>POCP</b>	kg NMVOC eq.	9,70E-05	5,42E-06	7,59E-05	4,60E-05	0,00E+00	-4,44E-03
<b>ADP-minerals&amp;metals*</b>	kg Sb eq.	4,61E-08	1,42E-10	4,95E-08	2,43E-09	0,00E+00	3,17E-09
<b>ADP-fossil*</b>	MJ	2,44E-01	5,19E-03	2,17E-01	6,87E-02	0,00E+00	-2,01E+01
<b>WDP*</b>	m <sup>3</sup>	1,09E-03	1,12E-05	8,91E-04	3,59E-04	0,00E+00	-1,71E-01
<b>GWP-GHG<sup>4</sup></b>	kg CO <sub>2</sub> eq.	1,60E-02	3,97E-04	1,55E-02	3,43E-03	0,00E+00	-1,37E+00
Acronyms	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, GWP-GHG: Global Warming Potential for Greenhouse Gases						

*Disclaimer: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.*

*The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).*

*Note: Biogenic carbon in packaging is balanced in A1–A3.)*

*\* Disclaimer: 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.*

<sup>4</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero.

## 100% Incineration Scenario for modules A5, C1-C4 & D

### Mandatory impact category indicators according to EN 15804, per 1 kg Steel Profile

Indicator	Unit	A5	C1	C2	C3	C4	D
<b>GWP-total</b>	kg CO <sub>2</sub> eq.	1,04E-01	3,97E-04	2,52E-02	1,45E-01	0,00E+00	-1,37E+00
<b>GWP-fossil</b>	kg CO <sub>2</sub> eq.	3,87E-02	3,97E-04	2,52E-02	1,45E-01	0,00E+00	-1,37E+00
<b>GWP-biogenic</b>	kg CO <sub>2</sub> eq.	6,57E-02	4,34E-08	1,72E-05	2,88E-05	0,00E+00	2,40E-03
<b>GWP-luluc</b>	kg CO <sub>2</sub> eq.	1,02E-05	3,45E-08	8,22E-06	8,93E-06	0,00E+00	-6,00E-03
<b>ODP</b>	kg CFC 11 eq.	6,48E-10	6,07E-12	5,00E-10	4,25E-10	0,00E+00	-9,93E-09
<b>AP</b>	mol H <sup>+</sup> eq.	2,28E-04	3,58E-06	7,87E-05	1,42E-04	0,00E+00	-5,06E-03
<b>EP-freshwater</b>	kg P eq.	3,66E-07	1,40E-09	1,94E-07	2,80E-07	0,00E+00	-6,86E-05
<b>EP-marine</b>	kg N eq.	1,00E-04	1,66E-06	2,62E-05	5,76E-05	0,00E+00	-1,14E-03
<b>EP-terrestrial</b>	mol N eq.	1,08E-03	1,82E-05	2,89E-04	6,34E-04	0,00E+00	-1,41E-02
<b>POCP</b>	kg NMVOC eq.	3,19E-04	5,42E-06	1,23E-04	2,03E-04	0,00E+00	-4,44E-03
<b>ADP-minerals&amp;metals*</b>	kg Sb eq.	9,30E-08	1,42E-10	8,05E-08	5,32E-08	0,00E+00	3,17E-09
<b>ADP-fossil*</b>	MJ	4,62E-01	5,19E-03	3,53E-01	3,60E-01	0,00E+00	-2,01E+01
<b>WDP*</b>	m <sup>3</sup>	3,55E-03	1,12E-05	1,45E-03	8,21E-03	0,00E+00	-1,71E-01
<b>GWP-GHG<sup>5</sup></b>	kg CO <sub>2</sub> eq.	3,87E-02	3,97E-04	2,52E-02	1,45E-01	0,00E+00	-1,37E+00
Acronyms	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, GWP-GHG: Global Warming Potential for Greenhouse Gases						

*Disclaimer: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.*

*The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).*

*Note: Biogenic carbon in packaging is balanced in A1–A3.)*

*\* Disclaimer: 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.*

<sup>5</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero.

## ABBREVIATIONS

All abbreviations used in the EPD must be added. Please add all the abbreviations used.

Abbreviation	Definition
<b>General Abbreviations</b>	
EN	European Norm (Standard)
EPD	Environmental Product Declaration
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
PCR	Product Category Rules
c-PCR	Complementary Product Category Rules
CEN	European Committee for Standardization
CPC	Central product classification
GHG	Greenhouse Gas
PEF	Product Environmental Footprint
<b>Environmental Impact Indicators (EN 15804)</b>	
GHG	Greenhouse Gas
GWP	Global Warming Potential (kg CO <sub>2</sub> eq.)
GWP-fossil	Global Warming Potential from fossil sources (kg CO <sub>2</sub> eq.)
GWP-biogenic	Global Warming Potential from biogenic sources (kg CO <sub>2</sub> eq.)
GWP-luluc	Global Warming Potential from land use and land use change (kg CO <sub>2</sub> eq.)
GWP-total	Total Global Warming Potential (kg CO <sub>2</sub> eq.)
GWP-GHG	Global Warming Potential for greenhouse gases (kg CO <sub>2</sub> eq.)
ODP	Ozone Depletion Potential (kg CFC-11 eq.)
AP	Acidification Potential (mol H <sup>+</sup> eq.)
EP	Eutrophication Potential
EP-freshwater	Freshwater eutrophication potential (kg P eq.)
EP-marine	Marine eutrophication potential (kg N eq.)
EP-terrestrial	Terrestrial eutrophication potential (mol N eq.)
POCP	Photochemical Ozone Creation Potential (kg NMVOC eq.)
ADP	Abiotic Depletion Potential
ADP-minerals&metals	Abiotic depletion potential for non-fossil resources (kg Sb eq.)
ADP-fossil	Abiotic depletion potential for fossil resources (MJ)
WDP	Water Deprivation Potential (m <sup>3</sup> )
<b>Resource Use Indicators</b>	
PERE	Renewable primary energy (excluding as raw materials) (MJ)
PERM	Renewable primary energy used as raw materials (MJ)
PERT	Total renewable primary energy (MJ)
PENRE	Non-renewable primary energy (excluding as raw materials) (MJ)
PENRM	Non-renewable primary energy used as raw materials (MJ)
PENRT	Total non-renewable primary energy (MJ)
SM	Use of secondary material (kg)
RSF	Use of renewable secondary fuels (MJ)
NRSF	Use of non-renewable secondary fuels (MJ)
FW	Use of net fresh water (m <sup>3</sup> )
HW	Hazardous Waste (disposed) (kg)
NHW	Non-Hazardous Waste (disposed) (kg)
RW	Radioactive Waste (disposed) (kg)
<b>Output Flow Indicators</b>	
CFR	Components for Reuse (kg)
MR	Material for Recycling (kg)
MER	Materials for Energy Recovery (kg)
EEE	Exported Energy, Electricity (MJ)

EET	Exported Energy, Thermal (MJ)
<b>Lifecycle Stages / Modules</b>	
A1	Raw material supply
A2	Transport
A3	Manufacturing
A4	Transport to site
A5	Construction/Installation
B1	Use
B2	Maintenance
B3	Repair
B4	Replacement
B5	Refurbishment
B6	Operational energy use
B7	Operational water use
C1	Deconstruction/Demolition
C2	Transport to waste processing
C3	Waste processing
C4	Disposal
D	Reuse-Recovery-Recycling potential
<b>Other Relevant Terms</b>	
SVHC	Substances of Very High Concern
EC No.	European Community Number
CAS No.	Chemical Abstracts Service Number
MJ	Megajoule
kg	Kilogram
m <sup>3</sup>	Cubic Meter
NMVOG	Non-Methane Volatile Organic Compounds
Sb eq.	Antimony Equivalents
P eq.	Phosphorus Equivalents
N eq.	Nitrogen Equivalents
CFC-11 eq.	Chlorofluorocarbon-11 Equivalents
CO <sub>2</sub> eq.	Carbon Dioxide Equivalents
kg C	Kilograms of Carbon
kg CO <sub>2</sub> eq.	Kilograms of Carbon Dioxide Equivalent
ND	Not Declared
PE	Polyethylene

## REFERENCES

General Programme Instructions of International EPD System. Version 5.0.1

PCR 2019:14. Construction products. Version 2.0.1

ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures.

EN 15804:2012+A2:2019/AC:2021

Life Cycle Assessment of Steel Profiles by Europrofil AB, Miljögiraff, 2025

## VERSION HISTORY

Original Version of the EPD



# Environmental Product Declaration



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

## Evolution Steel Profiles

from

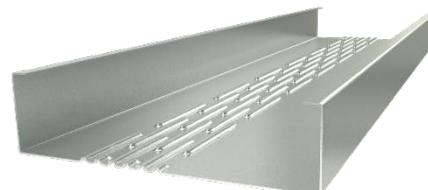
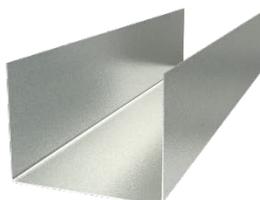
***Europrofil AB***

# EUROPROFIL

making room for tomorrow

Program:	The International EPD® System, <a href="http://www.environdec.com">www.environdec.com</a>
Program operator:	EPD International AB
EPD registration number:	EPD-IES-0016795
Version date:	2024-12-02
Validity date:	2029-12-01

*This EPD covers multiple products and based on average results of product group.  
An EPD should provide current information and may be updated if conditions change. The stated  
validity is therefore subject to the continued registration and publication at [www.environdec.com](http://www.environdec.com)*



## General information

### Program information

<b>Program:</b>	The International EPD® System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	www.environdec.com
<b>E-mail:</b>	info@environdec.com

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)

Product category rules (PCR): PCR 2019:14 Construction products (EN 15804: A2) (1.3.4)

PCR review was conducted by: *The Technical Committee of the International EPD® System.*  
Contact via [info@environdec.com](mailto:info@environdec.com)

Independent third-party verification of the declaration and data, according to ISO 14025:2006:

EPD verification by individual verifier

Third-party verifier: Sigita Židonienė  
vesta Consulting, UAB 

Approved by: The International EPD® System

The procedure for follow-up of data during EPD validity involves third-party verifier:

Yes  No

The EPD owner has sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programmes may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same version number up to the first two digits) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/declared units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison.

EPDs of construction products may not be comparable if they do not comply with EN 15804. EPDs made according to EN15804+A1, and EN15804+A2 are not comparable, especially since a majority of the environmental indicators are based on different versions. For further information about comparability, see EN 15804 and ISO 14025.

## Company information

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**Owner of the EPD** Europrofil AB

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**Contact** Adam Almgren (adam.almgren@europrofil.se)

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**Description of the organisation** Europrofil manufactures, sells and supplies steel profiles and construction systems for the Nordic construction industry.

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**Location of production site** Nora, Sweden

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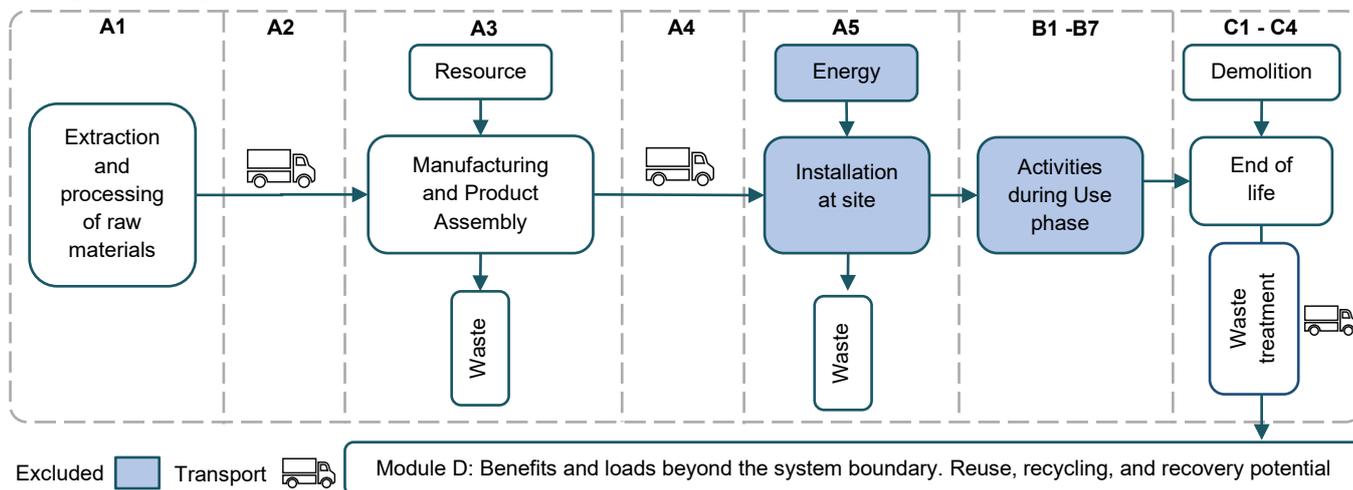
## Product information

<b>Product name</b>	Evolution Steel Profiles
<b>Product Identification</b>	CSP+ EVO Regel, Ljudregel; C+ EVO, Plusregel; U EVO, Skena; CY EVO, Ytterväggsregel, CYK EVO - Karmregel & UY EVO, Ytterväggsskena
<b>Product Description</b>	<p>The Europrofil EVO/Evolution range are metal profiles with improved sound properties for the construction of walls. They are made as per EN 14195:2005. Products are available in different dimensions and weights.</p> <p>For easy assembly and good adjustment, order rails 15 mm shorter than the ceiling height. The rule is 20 mm shorter when using rails with EP fabric, and 25 mm shorter when using rails with dry moisture sealing.</p>
<b>UN CPC code</b>	4219 - Other structures (except prefabricated buildings) and parts of structures, of iron, steel or aluminium;
<b>Geographical Scope</b>	Europe
<b>Use</b>	Metal profiles for dry walls, false ceiling and façade system construction

## LCA information

<b>Functional/Declared unit</b>	1 kg of Product
<b>Reference service life</b>	Not Applicable
<b>LCA software and Database(s)</b>	LCA for Experts (fka GaBi) with MLC Professional Database 2024.1 with an integrated Ecoinvent database 3.9.1
<b>System boundaries</b>	Cradle to Gate with options (A1-A3, A4, C1-C4, D)

### System Diagram:



The profiles are made from cutting sheet metals, depending on the type and material thickness, usually with sheet metal shears, profile shears, or nibblers. Holes are made by cutting or drilling to the strips of the desired width before they are pressed into profiles. They do not need post-treated as the materials have self-healing properties. The finished products are then transported and distributed locally to customers across Sweden. Environmental impact data for the product stage, A1-A3 sub-modules are adopted from the specific data provided by the manufacturer, and the transport associated with A4 from the factory gate to local distribution was assumed. The end-of-life reflects the Swedish market, for the credit for recovered material due to the avoided production, EU, RER or RoW datasets were used.

## Modules Declared

	Product stage			Assembly stage		Use stage							End-of-life stage				BSB
	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
Declared	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	EU	EU	SE	SE	-	-	-	-	-	-	-	-	EU	EU	EU	EU	EU
Specific data used	97 %			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation-Products	< 10 %			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation-Sites	0 %			-	-	-	-	-	-	-	-	-	-	-	-	-	-

BSB-Benefits & loads beyond system boundary

ND – Not Declared; X – Declared

Reading example:  $9,0E-03 = 9,0 \cdot 10^{-3} = 0,009$

\* Module A5 is only partially declared, GWP biogenic arising due to packaging material in A1-A3 stages are balanced in A5 where it exits the product system boundary.

## Content Declaration

Product Components	Mass (kg/DU)	Post-consumer materials Mass %	Biogenic materials Mass % and kg C / DU
Hot Dip Galvanised Steel	9,98E-01	26.2	0,00E+00
Epoxy	2,30E-03	0	0,00E+00
Adhesive	6,57E-07	0	0,00E+00
<b>Total Product</b>	<b>1,00E+00</b>	<b>26.1</b>	<b>0,00E+00</b>
Packaging Materials	Mass per declared unit (kg/DU)	Mass percent (versus the DU) (%/DU)	Mass biogenic carbon, kg C / DU
Pallet	1,75E-02	1,74	7,30E-03
PP	2,94E-04	0,03	0,00E+00
PET	2,84E-04	0,03	0,00E+00
<b>Total Packaging</b>	<b>1,80E-02</b>	<b>1,80</b>	<b>7,30E-03</b>

DU – Declared unit; For confidentiality reasons, the precise specification is not given here but was used in the calculations. This is the average material composition of the product group considered.

At the date of issue of this declaration (date: 2024-11-15), there is no “Substance of Very High Concern” (SVHC) in concentration above 0.1 % by weight, and neither does the packaging, following the European REACH regulation.

### Information on the biogenic carbon content

Biogenic carbon content	Unit per DU	Amount
Biogenic carbon content in the product	kg C	0,00E+00
Biogenic carbon content in packaging	kg C	7,30E-03

1 kg of biogenic carbon is equivalent to 44/12 kg of CO<sub>2</sub>.

### Information on energy content

Energy content	Unit per DU	Amount
Energy content in the product	MJ	7,12E-02

### Transportation to the building site (A4)

Scenario information	Unit per DU
Fuel type and consumption of vehicle or vehicle type	Truck-trailer, Euro 0 - 6 mix, < 40t gross weight
Distance [km]	190
Fuel/Energy consumption value [l/tkm]	2,10E-02
Capacity Utilisation (including empty returns) [%]	43
Volume capacity	1

### End-of-life scenario

Processes	Unit per DU
Collection Efficiency* [%]	100
Recycling Efficiency* [%]	95

Reuse [%]	0
Recycling [%]	94,8
Incineration [%]	0,2
Landfill [%]	5
Transportation to the waste processing (C2)	150 km, Truck-trailer, Euro 0 - 6 mix, < 40t gross weight

\*Assumed values

Note: End-of-life scenarios represent the entire product

### **Data**

This declaration, including data collection and the modelled foreground system including results, represents the production of Steel profiles in Sweden. Data for LCA is based on the annual average production values from the manufacturer collected in the year 2023.

### **Data quality**

All datasets used came from reputable databases Sphera MLC professional database 2023.2, and Ecoinvent 3.9.1 database, with good technological representativeness and which represents EU, RER or RoW average for all the life cycle stages. As the specific data is less than 3 years old, the data quality can be considered very good.

### **Time representativeness**

The primary data (foreground data) used for the product manufacturing corresponds to the period from 1st January 2023 to 31st December 2023. The datasets from generic data are not older than ten years.

### **Allocation**

No co-product allocation has been applied since no co-products are generated, and therefore allocation was not relevant.

### **Cut-off Criteria**

The general rules for the exclusion of inputs and outputs follow the requirements in EN 15804+A2.

## Environmental Information

The environmental performance results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks. The results of the end-of-life stage (module C) should be considered when using the results of the production stage (modules A1-A3).

### Potential environmental impact – indicators according to EN 15804+A2, EF 3,1

Indicator	Unit	Results per declared unit: 1 kg of Product							
		A1–A3	A4	A5*	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	9,22E-01	4,29E-03	2,66E-02	0,00E+00	1,18E-02	4,52E-03	5,23E-02	-1,15E-01
GWP-fossil	kg CO2 eq.	9,46E-01	4,29E-03	ND	0,00E+00	1,18E-02	4,47E-03	9,85E-03	-1,15E-01
GWP-biogenic	kg CO2 eq.	-2,54E-02	2,68E-08	2,66E-02	0,00E+00	2,73E-08	1,22E-05	4,24E-02	-5,00E-05
GWP-LULUC	kg CO2 eq.	9,68E-04	5,66E-09	ND	0,00E+00	5,76E-09	3,78E-05	1,81E-06	-1,99E-05
ODP	kg CFC-11 eq.	1,74E-10	2,90E-16	ND	0,00E+00	2,95E-16	2,66E-11	2,44E-11	-1,78E-14
AP	mole H+ eq.	4,45E-03	3,39E-06	ND	0,00E+00	2,44E-05	3,47E-05	1,26E-05	-2,94E-04
EP-freshwater**	kg P eq.	2,89E-06	5,40E-10	ND	0,00E+00	1,11E-09	1,03E-07	1,10E-06	-5,39E-08
EP-marine	kg N eq.	1,19E-03	4,50E-07	ND	0,00E+00	9,13E-06	1,57E-05	1,25E-04	-6,30E-05
EP-terrestrial	mole N eq.	1,30E-02	4,88E-06	ND	0,00E+00	1,01E-04	1,72E-04	3,72E-05	-6,80E-04
POCP	kg NMVOC eq.	8,91E-04	1,55E-06	ND	0,00E+00	1,85E-05	4,58E-05	2,61E-05	-2,28E-04
ADP-minerals & metals***	kg Sb eq.	3,32E-05	7,61E-12	ND	0,00E+00	7,75E-12	8,84E-09	4,34E-09	-1,29E-06
ADP-fossil***	MJ	1,22E+01	9,48E-04	ND	0,00E+00	9,65E-04	7,36E-02	2,82E-02	-1,38E+00
WDP***	m3	2,18E-01	2,40E-05	ND	0,00E+00	4,85E-05	6,15E-04	1,50E-03	1,43E-02
Acronyms	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; 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								

\* A5 is only partially declared where only biogenic emission from the packaging was presented.

\*\*Results in kg PO4 eq. can be obtained by multiplying the results in kg P eq. by a factor of 3,07.

\*\*\*Results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

## Additional Mandatory indicator

Results per declared unit: 1 kg of Product								
Indicator	Unit	A1–A3	A4	C1	C2	C3	C4	D
GWP-GHG	kg CO2 eq.	9,56E-01	4,29E-03	0,00E+00	1,18E-02	4,52E-03	5,22E-02	-1,15E-01

*GWP-GHG indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO2 is set to zero. This means that the uptake and emissions of biogenic CO2 are “balanced out” already in modules A1-A3, instead of in modules A1-A5 (for packaging) or modules A-C (for product).*

## Resource use indicators

Results per declared unit: 1 kg of Product								
Indicator	Unit	A1–A3	A4	C1	C2	C3	C4	D
PERE	MJ	2,03E+01	1,31E-03	0,00E+00	1,34E-03	5,75E-03	1,87E-03	-4,44E-02
PERM	MJ	2,98E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,06E+01	1,31E-03	0,00E+00	1,34E-03	5,75E-03	1,87E-03	-4,44E-02
PENRE	MJ	1,21E+01	9,48E-04	0,00E+00	9,65E-04	7,36E-02	2,82E-02	-1,38E+00
PENRM	MJ	8,49E-02	0,00E+00	0,00E+00	0,00E+00	-6,76E-02	-3,10E-02	0,00E+00
PENRT	MJ	1,22E+01	9,48E-04	0,00E+00	9,65E-04	5,96E-03	-2,80E-03	-1,38E+00
SM	kg	9,48E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,64E-02
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	6,28E-03	2,08E-06	0,00E+00	2,67E-06	1,74E-05	3,52E-05	2,11E-04

### Acronyms

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

## Waste and output flow indicators

### Waste flows

Results per declared unit: 1 kg of Product								
Indicator	Unit	A1–A3	A4	C1	C2	C3	C4	D
HWD	kg	4,21E-07	2,08E-12	0,00E+00	2,12E-12	7,48E-12	1,63E-12	-1,61E-08
NHWD	kg	9,24E-02	1,39E-06	0,00E+00	1,41E-06	1,42E-05	5,61E-04	-2,36E-03
RWD	kg	3,79E-04	3,26E-07	0,00E+00	3,31E-07	6,51E-07	9,06E-08	-3,96E-07
Acronyms	HW Hazardous waste disposed; NHW Non-hazardous waste disposed; RW Radioactive waste disposed							

### Output flows

Results per declared unit: 1 kg of Product								
Indicator	Unit	A1–A3	A4	C1	C2	C3	C4	D
CRU	kg	0,00E+00						
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,29E-01	0,00E+00	0,00E+00
MER	kg	0,00E+00						
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,09E-02	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,01E-02	0,00E+00
Acronyms	CRU Components for reuse; MFR Materials for recycling; MER Materials for energy recovery; EEE Exported electric energy; ETE Exported thermal energy							

Note: It is discouraged to use the results of modules A1-A3 (A1-A5 for services) without considering the results of module C.

## Additional Requirements

### *Location-based electricity mix from the use of electricity in manufacturing.*

The GWP-GHG values for the manufacturing stage impacts are presented according to the national electricity mix with data retrieved from the Association of Issuing Bodies (2022).

National electricity grid	Period	GWP excl. biogenic[kg CO <sub>2</sub> -eq/kWh]
Electricity Residual Mix - Sweden	2021-2022	1,17E-2

## Disclaimers

ILCD classification	Indicator	Disclaimer
ILCD Type 1	Global warming potential (GWP)	None
	Depletion potential of the stratospheric ozone layer (ODP)	None
	Potential incidence of disease due to PM emissions (PM)	None
ILCD Type 2	Acidification potential, Accumulated Exceedance (AP)	None
	Eutrophication potential, Fraction of nutrients reaching freshwater end compartment (EP-freshwater)	None
	Eutrophication potential, Fraction of nutrients reaching marine end compartment (EP-marine)	None
	Eutrophication potential, Accumulated Exceedance (EP-terrestrial)	None
	Formation potential of tropospheric ozone (POCP)	None
	Potential Human exposure efficiency relative to U235 (IRP)	1
ILCD Type 3	Abiotic depletion potential for non-fossil resources (ADP-minerals & metals)	2
	Abiotic depletion potential for fossil resources (ADP-fossil)	2
	Water (user) deprivation potential, deprivation-weighted water consumption (WDP)	2
	Potential Comparative Toxic Unit for ecosystems (ETP-fw)	2
	Potential Comparative Toxic Unit for humans (HTP-c)	2
	Potential Comparative Toxic Unit for humans (HTP-nc)	2
	Potential Soil quality index (SQP)	2

Disclaimer 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.

Disclaimer 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.

Disclaimer 3: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins, and/or risks.

## Abbreviations

CPC	Central Product Classification
CPR	Construction Product Regulation
EPD	Environmental Product Declaration
EU	European Union
GHG	Greenhouse Gas
GPI	General Programme Instructions
GWP	Global Warming Potential
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
LCI	Life Cycle Inventory
ND	Not Declared
PCR	Product Category Rules
PEF	Product Environmental Footprint
REACH	Restriction of Chemicals
RSL	Reference Service Life
SI	The International System of Units
SVHC	Substance of Very High Concern
UN	United Nations

## References

EN 15804:2012+A2	Sustainability of construction works: Environmental product declaration – Core rules for the product category of construction products
EPD International (2024)	General Programme Instructions of the International EPD® System, version 5.0
EPD International (2024)	PCR 2019:14. Construction products and construction services (EN 15804: A2) v1.3.4
ISO 14020:2000	Environmental labels and declarations: General principles
ISO 14025:2006	International Standard ISO 14025: Environmental labels and declarations — Type III environmental declarations — Principles and procedures
ISO 14040:2006	International Standard ISO 14040: Environmental Management – Life cycle assessment – Principles and framework. Second edition 2006-07-01.
ISO 14044:2006	International Standard ISO 14044: Environmental Management – Life cycle assessment – Requirements and Guidelines.
SCB (2023)	<a href="https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__MI__MI0305/MI0305T003/table/tableViewLayout1/">https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__MI__MI0305/MI0305T003/table/tableViewLayout1/</a> Accessed 2024-07-20
Association of Issuing Bodies (2022)	European Residual Mixes 2021 (2022) <a href="https://www.aibnet.org/sites/default/files/assets/facts/residualmix/2021/AIB_2021_Residual_Mix_Results_1_1.pdf">https://www.aibnet.org/sites/default/files/assets/facts/residualmix/2021/AIB_2021_Residual_Mix_Results_1_1.pdf</a> (Retrieved 2023-09-20)

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