# Environmental Product Declaration

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

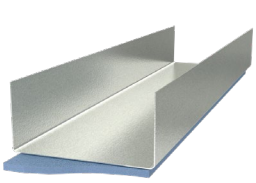
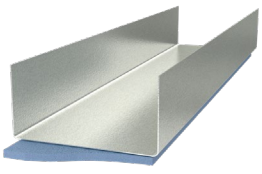
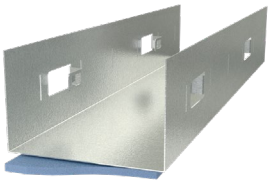
## Steel Profiles with PE-Cloth Sealant

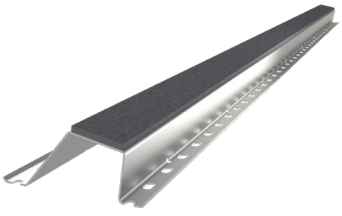
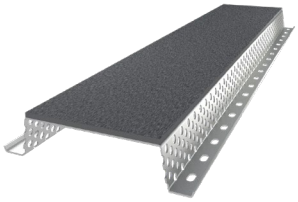
from

## Europrofil AB

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

| | |
|---|---|
| Programme: | The International EPD System, www.environdec.com |
| 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* |

*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 | |
|---|---|
| **Programme:** | The International EPD® System |
| **Address:** | EPD International AB<br>Box 210 60<br>SE-100 31 Stockholm<br>Sweden |
| **Website:** | www.environdec.com |
| **E-mail:** | support@environdec.com |

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

| Third-party Verification |
|---|
| Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:<br><br>☒ **Individual EPD verification without a pre-verified LCA/EPD tool**<br>Third-party verifier: *Hüdai Kara PhD, Metsims Sustainability Consulting, Oxford, U.K.*<br>Approved by: International EPD® System |
| Procedure for follow-up of data during EPD validity involves third party verifier:<br><br>☐ Yes ☒ 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@milijogiraff.se)
Oline Haggren (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.

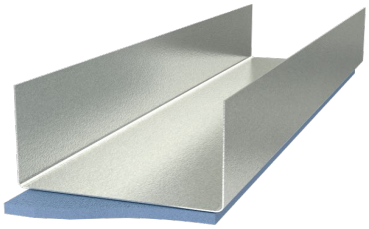
As the leading specialists in the Nordic region, their vision is to develop the construction industry through sustainable steel building systems.

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-Yttervägsskena 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-Yttervägsskena 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 $CO_2$.

| 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.

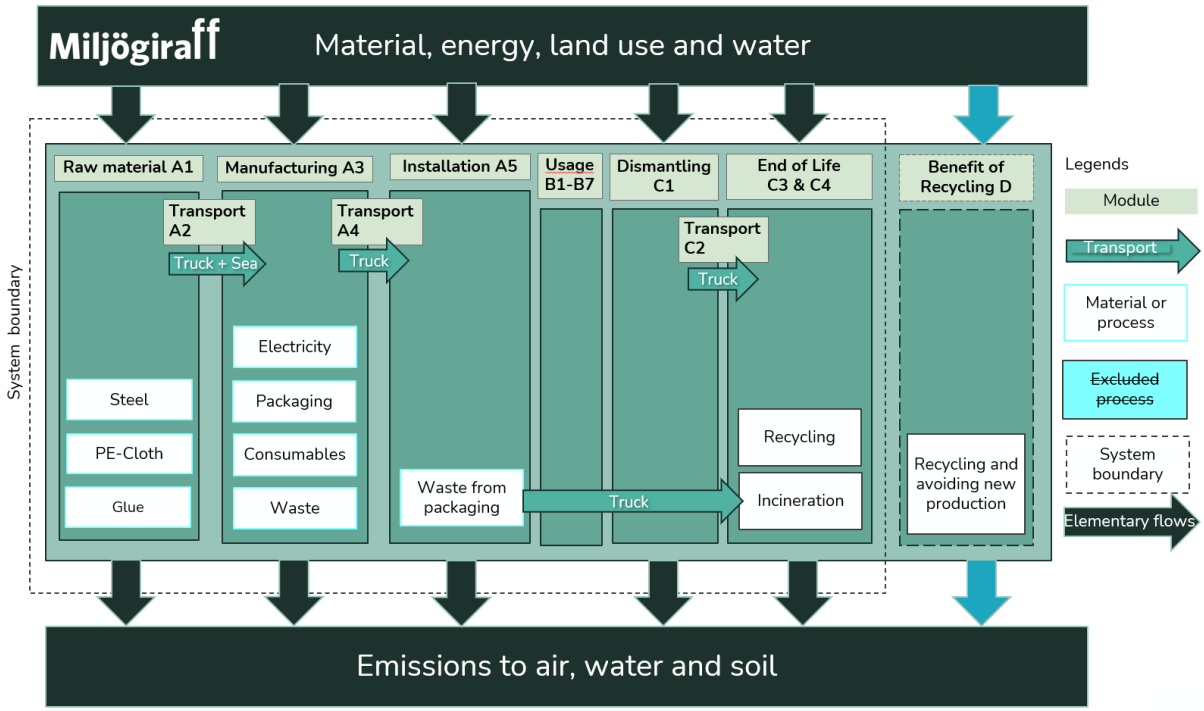
LCIA method:
The LCIA method follows the standard for Construction Products EN 15804:2012+A2:2019/AC:2021. EN 15804:2012+A2:2019/AC:2021 uses the impact categories and characterization factors of the LCIA methods used in Environmental Footprint 3.1 (EF 3.1), with the only difference that biogenic carbon 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 CO2-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 | 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 |
| **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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **GWP-total** | kg $CO_2$ 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 |
| **GWP-fossil** | kg $CO_2$ 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 |
| **GWP-biogenic** | kg $CO_2$ 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 |
| **GWP-luluc** | kg $CO_2$ 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 |
| **ODP** | 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 |
| **AP** | mol $H^+$ 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 |
| **EP-freshwater** | 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 |
| **EP-marine** | 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 |
| **EP-terrestrial** | 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 |
| **POCP** | 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 |
| **ADP-minerals&metals*** | 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 |
| **ADP-fossil*** | 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 |
| **WDP*** | $m^3$ | 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** |
| **GWP-GHG**[1] | kg $CO_2$ 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 |
| **PM** | 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 |
| **IR**[2] | 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 |
| **ETP – FW*** | 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 |
| **HTP – C*** | 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 |
| **HTP – NC*** | 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 |
| **Land use, SQP*** | 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.*

[1] 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 $CO_2$ is set to zero.
[2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

## Resource use 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** | $m^3$ | 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[3] |
| Ozone depletion | 11% |

[3] 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 |
|---|---|---|---|---|---|---|---|
| **GWP-total** | kg $CO_2$ eq. | -1,22E+00 | 3,97E-04 | 1,55E-02 | 3,43E-03 | 0,00E+00 | -1,37E+00 |
| **GWP-fossil** | kg $CO_2$ eq. | 1,60E-02 | 3,97E-04 | 1,55E-02 | 3,43E-03 | 0,00E+00 | -1,37E+00 |
| **GWP-biogenic** | kg $CO_2$ eq. | -1,24E+00 | 4,34E-08 | 1,06E-05 | 2,35E-06 | 0,00E+00 | 2,40E-03 |
| **GWP-luluc** | kg $CO_2$ eq. | 5,47E-06 | 3,45E-08 | 5,06E-06 | 1,14E-06 | 0,00E+00 | -6,00E-03 |
| **ODP** | kg CFC 11 eq. | 3,12E-10 | 6,07E-12 | 3,08E-10 | 5,57E-11 | 0,00E+00 | -9,93E-09 |
| **AP** | mol $H^+$ eq. | 6,29E-05 | 3,58E-06 | 4,84E-05 | 3,07E-05 | 0,00E+00 | -5,06E-03 |
| **EP-freshwater** | kg P eq. | 1,17E-07 | 1,40E-09 | 1,19E-07 | 1,48E-08 | 0,00E+00 | -6,86E-05 |
| **EP-marine** | kg N eq. | 2,34E-05 | 1,66E-06 | 1,61E-05 | 1,41E-05 | 0,00E+00 | -1,14E-03 |
| **EP-terrestrial** | mol N eq. | 2,57E-04 | 1,82E-05 | 1,78E-04 | 1,55E-04 | 0,00E+00 | -1,41E-02 |
| **POCP** | kg NMVOC eq. | 9,70E-05 | 5,42E-06 | 7,59E-05 | 4,60E-05 | 0,00E+00 | -4,44E-03 |
| **ADP-minerals&metals*** | kg Sb eq. | 4,61E-08 | 1,42E-10 | 4,95E-08 | 2,43E-09 | 0,00E+00 | 3,17E-09 |
| **ADP-fossil*** | MJ | 2,44E-01 | 5,19E-03 | 2,17E-01 | 6,87E-02 | 0,00E+00 | -2,01E+01 |
| **WDP*** | $m^3$ | 1,09E-03 | 1,12E-05 | 8,91E-04 | 3,59E-04 | 0,00E+00 | -1,71E-01 |
| **GWP-GHG[4]** | kg $CO_2$ 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.*

[4] 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 $CO_2$ 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 |
|---|---|---|---|---|---|---|---|
| **GWP-total** | kg $CO_2$ eq. | 1,04E-01 | 3,97E-04 | 2,52E-02 | 1,45E-01 | 0,00E+00 | -1,37E+00 |
| **GWP-fossil** | kg $CO_2$ eq. | 3,87E-02 | 3,97E-04 | 2,52E-02 | 1,45E-01 | 0,00E+00 | -1,37E+00 |
| **GWP-biogenic** | kg $CO_2$ eq. | 6,57E-02 | 4,34E-08 | 1,72E-05 | 2,88E-05 | 0,00E+00 | 2,40E-03 |
| **GWP-luluc** | kg $CO_2$ eq. | 1,02E-05 | 3,45E-08 | 8,22E-06 | 8,93E-06 | 0,00E+00 | -6,00E-03 |
| **ODP** | kg CFC 11 eq. | 6,48E-10 | 6,07E-12 | 5,00E-10 | 4,25E-10 | 0,00E+00 | -9,93E-09 |
| **AP** | mol $H^+$ eq. | 2,28E-04 | 3,58E-06 | 7,87E-05 | 1,42E-04 | 0,00E+00 | -5,06E-03 |
| **EP-freshwater** | kg P eq. | 3,66E-07 | 1,40E-09 | 1,94E-07 | 2,80E-07 | 0,00E+00 | -6,86E-05 |
| **EP-marine** | kg N eq. | 1,00E-04 | 1,66E-06 | 2,62E-05 | 5,76E-05 | 0,00E+00 | -1,14E-03 |
| **EP-terrestrial** | mol N eq. | 1,08E-03 | 1,82E-05 | 2,89E-04 | 6,34E-04 | 0,00E+00 | -1,41E-02 |
| **POCP** | kg NMVOC eq. | 3,19E-04 | 5,42E-06 | 1,23E-04 | 2,03E-04 | 0,00E+00 | -4,44E-03 |
| **ADP-minerals&metals*** | kg Sb eq. | 9,30E-08 | 1,42E-10 | 8,05E-08 | 5,32E-08 | 0,00E+00 | 3,17E-09 |
| **ADP-fossil*** | MJ | 4,62E-01 | 5,19E-03 | 3,53E-01 | 3,60E-01 | 0,00E+00 | -2,01E+01 |
| **WDP*** | $m^3$ | 3,55E-03 | 1,12E-05 | 1,45E-03 | 8,21E-03 | 0,00E+00 | -1,71E-01 |
| **GWP-GHG**[5] | kg $CO_2$ 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.*

[5] 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 $CO_2$ is set to zero.

# ABBREVIATIONS

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

| Abbreviation | Definition |
|---|---|
| **General Abbreviations** | |
| 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 |
| **Environmental Impact Indicators (EN 15804)** | |
| GHG | Greenhouse Gas |
| GWP | Global Warming Potential (kg $CO_2$ eq.) |
| GWP-fossil | Global Warming Potential from fossil sources (kg $CO_2$ eq.) |
| GWP-biogenic | Global Warming Potential from biogenic sources (kg $CO_2$ eq.) |
| GWP-luluc | Global Warming Potential from land use and land use change (kg $CO_2$ eq.) |
| GWP-total | Total Global Warming Potential (kg $CO_2$ eq.) |
| GWP-GHG | Global Warming Potential for greenhouse gases (kg $CO_2$ eq.) |
| ODP | Ozone Depletion Potential (kg CFC-11 eq.) |
| AP | Acidification Potential (mol $H^+$ 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 ($m^3$) |
| **Resource Use Indicators** | |
| 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 ($m^3$) |
| HW | Hazardous Waste (disposed) (kg) |
| NHW | Non-Hazardous Waste (disposed) (kg) |
| RW | Radioactive Waste (disposed) (kg) |
| **Output Flow Indicators** | |
| 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) |
| **Lifecycle Stages / Modules** | |
| 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 |
| **Other Relevant Terms** | |
| SVHC | Substances of Very High Concern |
| EC No. | European Community Number |
| CAS No. | Chemical Abstracts Service Number |
| MJ | Megajoule |
| kg | Kilogram |
| $m^3$ | Cubic Meter |
| NMVOC | Non-Methane Volatile Organic Compounds |
| Sb eq. | Antimony Equivalents |
| P eq. | Phosphorus Equivalents |
| N eq. | Nitrogen Equivalents |
| CFC-11 eq. | Chlorofluorocarbon-11 Equivalents |
| $CO_2$ eq. | Carbon Dioxide Equivalents |
| kg C | Kilograms of Carbon |
| kg $CO_2$ 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

EPD
INTERNATIONAL EPD SYSTEM
www.environdec.com