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# ENVIRONMENTAL PRODUCT DECLARATION

In accordance with ISO 14025 and EN 15804+A2

## VWS Befestigungstechnik GmbH
## PURE Profil

**Owner of the declaration**
VWS Befestigungstechnik GmbH
Siemensstraße 2
72805 Lichtenstein
Germany

**Product**
PURE Profil

**Declared product / Declared unit**
1 m

**This declaration is based on Product Category Rules**
EN 15804:2012 + A2:2019,
NPCR Part A:2021

**Program operator:**
EPD Global
Majorstuen P.O. Box 5250
N-0303 Oslo
Norway

**Declaration number**
NEPD-15021-15740

**Registration number**
NEPD-15021-15740

**Issue date**
04.03.2026

**Valid to**
04.03.2031

**EPD Software**
Emidat Platform v1.0.0

## General Information

**Product**
PURE Profil

**Program Operator**
EPD Global
Majorstuen P.O. Box 5250
N-0303 Oslo
Norway
Phone: +47 23 08 80 00
Email: post@epd-norge.no

**Declaration Number**
NEPD-15021-15740

**This declaration is based on Product Category Rules**
EN 15804:2012 + A2:2019,
NPCR Part A:2021

**Statements**
The owner of the declaration shall be liable for the underlying information and evidence. The Norwegian EPD Foundation shall not be liable with respect to manufacturer, life cycle assessment data and evidences.

**Declared unit**
1 m with a reference service life of 50 years

**Verification**
Independent verification of the declaration and data, according to ISO14025:2010

☐ Internally ☑ Externally

Charlotte Merlin
(Independent verifier approved by EPD Global)

**Owner of the declaration**
VWS Befestigungstechnik GmbH

**Contact person**
look@vws.de

**Phone**
+497129695100

**Email**
look@vws.de

**Manufacturer**
VWS Befestigungstechnik GmbH
Siemensstraße 2
72805 Lichtenstein, Germany

**Place of production**
Faulquemont, France

**Management system**
ISO 9001

**Organisation no**
351366

**Issue date**
04.03.2026

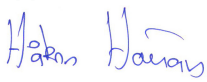
**Valid to**
04.03.2031

**Year of study**
2023

**Comparability**
EPDs of construction products may not be comparable if they do not comply with EN 15804 and are not seen in a building context. EPD data may not be comparable if the datasets used are not developed in accordance with EN 15804 and if the background systems are not based on the same database (including primary and secondary data).

**Development of EPD**
The declaration was created using the Emidat EPD tool v1.0, developed by Emidat GmbH.

**Approved**

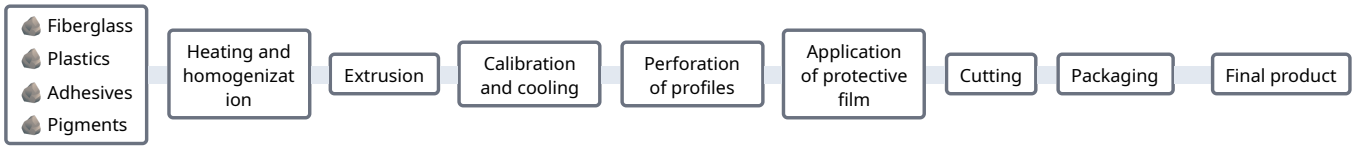


Håkon Hauan, The Norwegian EPD Foundation

# Product

## Product description

VWS PURE fabric-reinforced corner profiles are composite PVC components engineered to deliver structural resilience and precise edge alignment within exterior thermal insulation composite systems (ETICS). The profiles incorporate rigid PVC combined with embedded mesh fabric, providing enhanced mechanical anchoring and reinforcement at corners and transitions. The PVC compound used in the VWS PURE profiles contains a minimum of 50% recycled material, supporting environmental sustainability without compromising product performance. Designed for longevity, these profiles offer high resistance to environmental influences, including corrosion, UV exposure, and moisture.




VWS PURE fabric-reinforced corner profiles are used in ETICS applications to reinforce and stabilize external angles, window reveals, and façade terminations. By integrating flexible mesh into the profile, they ensure reliable bonding with insulation and render layers, supporting long-term crack resistance and dimensional stability. These profiles are embedded during the plastering process and help absorb stress resulting from thermal movement or mechanical impact. Their configuration simplifies installation while contributing to the durability and visual consistency of rendered façades.

## Product specification

| Name of ingredient | Share of total weight | Country of origin |
|---|---|---|
| Adhesives | 0 - 2 % | Various |
| Fiberglass | 10 - 25 % | Germany |
| Pigments | 0 - 2 % | France |
| Plastics | 50 - 80 % | France |

## Technical data

| | Unit | Value |
|---|---|---|
| Density | kg / m | 0.117680275 |
| Mass | kg | 0.117680275 |

## Market

France

## Recipients

B2B

## LCA: Calculation rules

### Declared unit
1 m

### Reference service life
50 years
This value represents a conventional reference lifespan, not a guaranteed performance duration, and assumes normal exposure conditions, adequate design, and routine maintenance.

### Data quality
The foreground data are based on extensive and detailed data collection at the production site of the manufacturer, covering key processes such as raw material sourcing, formulation, and manufacturing. These foreground data are fully linked with corresponding datasets from the background database (ecoinvent 3.10) or with EN15804+A2-compliant EPDs, ensuring consistency, reliability, and maintaining alignment with the latest industry standards.
The overall data representativeness is rated as good with an overall score of 4.00/5, in accordance with EN 15804+A2 Annex E guidance on data quality assessment, considering geographical, technical, and temporal representativeness.

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

| | Production | | | Installation | | Use stage | | | | | | | End-of-Life | | | | Next product system |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Raw material supply | Transport | Manufacturing | Transport | Installation Process | Use | Maintenance | Repair | Replacement | Refurbishment | Operational Energy Use | Operational Water Use | Demolition | Transport | Waste Processing | Disposal | Benefits and loads beyond the system boundary |
| Module | A1 | A2 | A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
| Modules declared | x | x | x | x | MND | MND | MND | MND | MND | MND | MND | MND | x | x | x | x | x |
| Geography | | | FR | FR | MND | MND | MND | MND | MND | MND | MND | MND | FR | FR | FR | FR | FR |

For the geographies modeled in A1 and A2, refer to *Product specification*.

Type of EPD: Cradle to gate with options, modules C1-C4, and D
**Stage of Material Production and Construction**
Module A1: Extraction and processing of raw materials
Module A2: Transportation of raw materials to the plant
Module A3: Profile production at the plant and waste treatment
Module A4: Transportation to the installation site
**Disposal Stage**
Module C1: Manual Demolition/Dismantling (no loads)
Module C2: Transportation of dismantled profiles for waste processing
Module C3: Sorting of waste components and incineration of plastic
**Credits and burdens outside the system boundaries**
Module D: Credits and burdens from incineration of the profiles

### Cut-off criteria
No cut-offs were applied.

### Allocation

Foreground inventory data (energy and fuels, ancillary materials, emissions and waste) was collected at the production-process level. Using the total output of the production process in 2023, these flows are allocated to the reference product based on mass.

## LCA: Scenarios and additional technical information

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

| Transport to the building site (A4) | Value | Unit |
|---|---|---|
| Transported mass: Product and packaging | 0.15 | kg |
| Truck: Distance | 100.00 | km |
| Truck: Energy demand | 1.58 | MJ / t*km |
| Truck: Activity | transport, freight, lorry >32 metric ton, EURO6 | - |
| Truck: Capacity utilization | 53.30 | % |

| Transport to the waste facility (C2) | Value | Unit |
|---|---|---|
| Mass to incineration | 0.12 | kg |
| Distance to incineration | 50.00 | km |
| Truck: Activity | transport, freight, lorry >32 metric ton, EURO6 | - |
| Truck: Capacity utilization | 53.30 | % |
| Truck: Distance | 50.00 | km |
| Truck: Energy demand | 1.58 | MJ / t*km |

| Waste processing (C3) | Value | Unit |
|---|---|---|
| Material for incineration | 0.12 | kg |

| Reuse, recovery and/or recycling potentials (D) | Value | Unit |
|---|---|---|
| Substitution of electrical energy production | 0.18 | MJ |
| Substitution of thermal energy production | 0.44 | MJ |

Calculation of benefits and loads per EN 15804+A2.

# LCA: Results

The LCA was conducted using the Ecoinvent v3.10 allocation cut-off system model (EN 15804) and the EF 3.1 EN 15804 LCIA method. The following results are based on the market-based electricity approach applied to the foreground system (A3). Further details on electricity data are provided in the Additional Requirements section.

## Core environmental impact indicators

| Indicator | Unit | A1-A3 | A4 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|
| GWP-total | kg $CO_2$-eq. | 2.85e-01 | 1.59e-03 | 0.00e+00 | 6.10e-04 | 2.51e-01 | 0.00e+00 | -3.80e-02 |
| GWP-fossil | kg $CO_2$-eq. | 2.56e-01 | 1.58e-03 | 0.00e+00 | 6.09e-04 | 2.51e-01 | 0.00e+00 | -3.78e-02 |
| GWP-biogenic | kg $CO_2$-eq. | 2.80e-02 | 7.95e-07 | 0.00e+00 | 3.06e-07 | 0.00e+00 | 0.00e+00 | -1.11e-04 |
| GWP-luluc | kg $CO_2$-eq. | 1.07e-03 | 5.63e-07 | 0.00e+00 | 2.16e-07 | 2.54e-05 | 0.00e+00 | -5.93e-06 |
| ODP | kg CFC-11-Eq | 4.36e-08 | 3.30e-11 | 0.00e+00 | 1.27e-11 | 1.17e-09 | 0.00e+00 | -1.60e-09 |
| AP | mol H+-Eq | 1.20e-03 | 3.74e-06 | 0.00e+00 | 1.44e-06 | 1.84e-04 | 0.00e+00 | -3.95e-05 |
| EP-freshwater | kg P-Eq | 7.47e-05 | 1.11e-07 | 0.00e+00 | 4.29e-08 | 1.16e-05 | 0.00e+00 | -1.30e-06 |
| EP-marine | kg N-Eq | 2.78e-04 | 9.81e-07 | 0.00e+00 | 3.77e-07 | 5.48e-05 | 0.00e+00 | -1.32e-05 |
| EP-terrestrial | mol N-Eq | 2.66e-03 | 1.06e-05 | 0.00e+00 | 4.08e-06 | 5.04e-04 | 0.00e+00 | -1.25e-04 |
| POCP | kg NMVOC-Eq | 1.01e-03 | 6.50e-06 | 0.00e+00 | 2.50e-06 | 1.62e-04 | 0.00e+00 | -7.26e-05 |
| ADPE | kg Sb-Eq | 9.81e-06 | 4.53e-09 | 0.00e+00 | 1.74e-09 | 2.96e-07 | 0.00e+00 | -4.32e-08 |
| ADPF | MJ, net calorific value | 5.16e+00 | 2.38e-02 | 0.00e+00 | 9.15e-03 | 4.06e-01 | 0.00e+00 | -1.09e+00 |
| WDP | $m^3$ world Eq deprived | 1.01e-01 | 1.19e-04 | 0.00e+00 | 4.59e-05 | 3.11e-01 | 0.00e+00 | -7.24e-03 |

**GWP-total**: Global Warming Potential - total**GWP-fossil**: Global warming potential - fossil**GWP-biogenic**: Global Warming Potential - biogenic**GWP-luluc**: Global Warming Potential - luluc**ODP**: Depletion potential of the stratospheric ozone layer**AP**: Acidification potential, Accumulated Exceedance**EP-freshwater**: Eutrophication potential - freshwater**EP-marine**: Eutrophication potential - marine**EP-terrestrial**: Eutrophication potential - terrestrial**POCP**: Photochemical Ozone Creation Potential**ADPE**: Abiotic depletion potential - non-fossil resources**ADPF**: Abiotic depletion potential - fossil resources**WDP**: Water (user) deprivation potential

## Additional indicators

| Indicator | Unit | A1-A3 | A4 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|
| PM | disease incidence | 1.07e-08 | 1.54e-10 | 0.00e+00 | 5.94e-11 | 1.64e-09 | 0.00e+00 | -3.72e-10 |
| IRP | kBq U235-Eq | 6.32e-02 | 2.89e-05 | 0.00e+00 | 1.11e-05 | 1.59e-03 | 0.00e+00 | -2.48e-02 |
| ETP-fw | CTUe | 2.39e+00 | 5.63e-03 | 0.00e+00 | 2.17e-03 | 1.32e+01 | 0.00e+00 | -4.56e-02 |
| HTP-c | CTUh | 9.35e-10 | 1.01e-11 | 0.00e+00 | 3.90e-12 | 1.76e-10 | 0.00e+00 | -6.93e-11 |
| HTP-nc | CTUh | 5.43e-09 | 1.57e-11 | 0.00e+00 | 6.03e-12 | 1.19e-09 | 0.00e+00 | -8.44e-11 |
| SQP | dimensionless | 1.60e+00 | 2.39e-02 | 0.00e+00 | 9.20e-03 | 1.95e-01 | 0.00e+00 | -2.75e-02 |

**PM**: Potential incidence of disease due to PM emissions**IRP**: Potential Human exposure efficiency relative to U235**ETP-fw**: Potential Comparative Toxic Unit for ecosystems**HTP-c**: Potential Comparative Toxic Unit for humans - cancer effects**HTP-nc**: Potential Comparative Toxic Unit for humans - non-cancer effects**SQP**: Potential Soil quality index

**IRP**: 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.

**ETP-fw**, **HTP-c**, **HTP-nc** and **SQP**: The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experienced with these indicators.

## Use of resources

| Indicator | Unit | A1-A3 | A4 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|
| PERE | MJ | 1.32e-01 | 3.77e-04 | 0.00e+00 | 1.45e-04 | 3.70e-02 | 0.00e+00 | -5.05e-02 |
| PERM | MJ | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| PERT | MJ | 1.32e-01 | 3.77e-04 | 0.00e+00 | 1.45e-04 | 3.70e-02 | 0.00e+00 | -5.05e-02 |
| PENRE | MJ | 3.23e+00 | 2.38e-02 | 0.00e+00 | 9.15e-03 | 4.06e-01 | 0.00e+00 | -1.09e+00 |
| PENRM | MJ | 1.92e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | -1.92e+00 | 0.00e+00 | 0.00e+00 |
| PENRT | MJ | 5.15e+00 | 2.38e-02 | 0.00e+00 | 9.15e-03 | -1.52e+00 | 0.00e+00 | -1.09e+00 |
| SM | kg | 4.43e-02 | 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 |
| NRSF | MJ | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| FW | $m^3$ | 2.65e-03 | 3.46e-06 | 0.00e+00 | 1.33e-06 | 7.23e-03 | 0.00e+00 | -1.76e-04 |

**PERE**: Primary energy resources - renewable: use as energy carrier**PERM**: Primary energy resources - renewable: used as raw materials**PERT**: Primary energy resources - renewable: total**PENRE**: Primary energy resources - non-renewable: use as energy carrier**PENRM**: Primary energy resources - non-renewable: used as raw materials**PENRT**: Primary energy resources - non-renewable: total**SM**: Use of secondary material**RSF**: Renewable secondary fuels**NRSF**: Non-renewable secondary fuels**FW**: Net use of fresh water

## Waste flows

| Indicator | Unit | A1-A3 | A4 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|
| HWD | kg | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| NHWD | kg | 1.36e-02 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 1.18e-01 | 0.00e+00 | 0.00e+00 |
| RWD | kg | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 |

**HWD**: Hazardous waste disposed**NHWD**: Non hazardous waste disposed**RWD**: Radioactive waste disposed

## Output flows

| Indicator | Unit | A1-A3 | A4 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|
| CRU | kg | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| MFR | kg | 7.21e-03 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| MER | kg | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| EEE | MJ | 1.74e-02 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 2.54e-01 | 0.00e+00 | 0.00e+00 |
| EET | MJ | 4.18e-02 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 6.34e-01 | 0.00e+00 | 0.00e+00 |

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

| Name | Value | Unit |
|---|---|---|
| Biogenic carbon content in product | 0 | kg C |
| Biogenic carbon content in accompanying packaging | 9.03e-03 | kg C |

## Additional requirements

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

Electricity consumption in the manufacturing phase is composed from the source below. This EPD follows the market-based approach.

| Electricity | Quantity [kWh] | Emission Factor [kg $CO_2$e/kWh] |
|---|---|---|
| electricity, high voltage, residual mix (FR) | 0.08 | 0.19 |

### Dangerous substances

The product contains no hazardous substances given by the REACH Candidate List or the Norwegian Priority List.

## Additional environmental information

### Additional environmental impact indicators required in NPCR Part A for construction products

| Indicator | Unit | A1-A3 | A4 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|
| GWP-IOBC | kg $CO_2$-eq. | 2.59e-01 | 1.58e-03 | 0.00e+00 | 6.10e-04 | 2.51e-01 | 0.00e+00 | -3.79e-02 |

**GWP-IOBC**: Global Warming Potential - Instantaneous oxidation of biogenic carbon

## Bibliography


| | |
|---|---|
| CEN/TR 15941:2010 | Sustainability of construction works - Environmental product declarations - Methodology for selection and use of generic data |
| EN 15804:2012+A2:2019 | Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products |
| EN 15942:2022-04 | Sustainability of construction works - Environmental product declarations - Communication format business-to-business |
| ISO 14025:2011-10 | Environmental labels and declarations - Type III environmental declarations - Principles and procedures |
| ISO 14040:2021-02 | Environmental management - Life cycle assessment - Principles and framework |
| ISO 14044:2021-02 | Environmental management - Life cycle assessment - Requirements and guidelines |
| EF 3.1 | Environmental Footprint (EF) Life Cycle Impact Assessment method - Characterisation Factors version 3.1, European Commission, Joint Research Centre (JRC) |
| ecoinvent 3.10 | ecoinvent, Zurich, Switzerland, database version 3.10 |
| NPCR Part A:2021 | Construction products and services, Version 2.0. Issue date: 24.03.2021; validity extended to 24.03.2026. |



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|---|---|---|---|
| epd-global Powered by EPD-Norway | **Program Operator** | Phone | +47 23 08 80 00 |
| | EPD Global | | |
| | P.O. Box 5250 Majorstuen, N-0303 Oslo | Email | post@epd-norge.no |
| | Norway | Web | www.epd-global.no |
| epd-global Powered by EPD-Norway | **Publisher** | Phone | +47 23 08 80 00 |
| | EPD Global | | |
| | P.O. Box 5250 Majorstuen, N-0303 Oslo | Email | post@epd-norge.no |
| | Norway | Web | www.epd-global.no |
| VWS | **Owner of the declaration** | Phone | +497129695100 |
| | VWS Befestigungstechnik GmbH | | |
| | Siemensstraße 2, 72805 Lichtenstein | Email | look@vws.de |
| | Germany | Web | https://www.vws.de |
| VWS | **Author of the life cycle assessment** | Phone | +497129695100 |
| | VWS Befestigungstechnik GmbH | | |
| | Siemensstraße 2, 72805 Lichtenstein | Email | look@vws.de |
| | Germany | Web | https://www.vws.de |
| ECO PLATFORM EPD VERIFIED | ECO Platform | Web | www.eco-platform.org |
| | ECO Portal | Web | ECO Portal |
| EMIDAT | **Developer of EPD generator** | Phone | +49 176 56 96 77 91 |
| | Emidat GmbH | | |
| | Sandstraße 33, 80335 München | Email | epd@emidat.com |
| | Germany | Web | www.emidat.com |