

Environmental Product Declaration



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



PPG TIKKURILA Pinja Protect G

| | |
|--------------------------|---|
| Programme: | The International EPD® System, www.environdec.com |
| Programme operator: | EPD International AB |
| EPD registration number: | EPD-IES-0025567 |
| Version date: | 2025-09-15 |
| Validity date: | 2030-09-15 |

An EPD may be updated or republished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com.

EPD of construction products may not be comparable if they do not comply with EN 15804.

EPD of a single product from a manufacturer.



General information

Programme information

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

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| Accountabilities for PCR, LCA and independent, third-party verification |
| Product Category Rules (PCR) |
| CEN standard EN 15804 serves as the Core Product Category Rules (PCR) |
| Product Category Rules (PCR): <i>International EPD System, PCR for Construction Products, 2019:14, version 2.0.1.</i> |

PCR review was conducted by: The Technical Committee of the International EPD System. See www.environdec.com for a list of members. Review chairs: Rob Rouwette (chair), Noa Meron (co-chair)
The review panel may be contacted via support@environdec.com.

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| Life Cycle Assessment (LCA) |
| LCA accountability: Jacobo Aguilar, Product Sustainability Specialist, Product Sustainability CoE |
| Third-party verification |
| Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: <input checked="" type="checkbox"/> EPD verification by EPD Process Certification* without a pre-verified LCA/EPD tool |
| Internal auditor: Yiping Qu, Product Sustainability Specialist, Product Sustainability CoE |
| Third-party verifier, accountable for the certification: Epsten Group, Inc.  101 Marietta St. NW, Suite 2600, Atlanta, Georgia 30303, USA www.epstengroup.com |
| Third-party verifier is accredited by A2LA |
| Procedure for follow-up of data during EPD validity involves third party verifier: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

EPD Type: Product specific. This EPD is based on the 1000 L version of the PPG Pinja Protect G.

*EPD process certification involves an accredited certification body certifying and periodically auditing the EPD process and conducting external and independent verification of EPDs that are regularly published. More information can be found in the General Programme Instructions on www.environdec.com.

The EPD owner has the sole ownership, liability, and responsibility for the EPD. This EPD is intended for B2B communication

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, 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

| | |
|---|---|
| <u>Owner of the EPD:</u> | PPG Industries, 1 PPG Place, Pittsburgh, PA, 15272 |
| <u>Contact:</u> | Sustainability.COE@ppg.com |
| <u>Description of the organisation:</u> | PPG is a global manufacturer of coatings who is the owner of many brands through-out Europe, one of these being Tikkurila coatings. |

Product-related or management system-related certifications:

PPG's EHS Policy incorporates the elements of voluntary global industry initiatives, including Responsible Care[®] and Coatings Care[®], which help companies manage safe and environmentally responsible practices in the chemicals and coatings industries. At more than 40 of its facilities, PPG has received ISO 14001:2004 certification.

Name and location of production site(s):

Nykvärn, Sweden

Product Information

| | |
|--------------------------------|---|
| <u>Product name:</u> | PPG TIKKURILA Pinja Protect G |
| <u>Product identification:</u> | Products are identified by name |
| <u>Product description:</u> | A water-borne all-round alkyd primer to ensure high quality result. |

**Any technical information of the product should refer to the TDS.

| | |
|----------------------------|--------------------------|
| <u>UN CPC code:</u> | 35110 |
| <u>Geographical scope:</u> | European Union Countries |
| <u>Lifespan:</u> | 15-20 years |
| <u>Coverage rate:</u> | 8 m ² /L |

LCA Information

Declared unit: The declared unit for this EPD is 1 kg. The spreading rate is averaged at 8 m²/L.

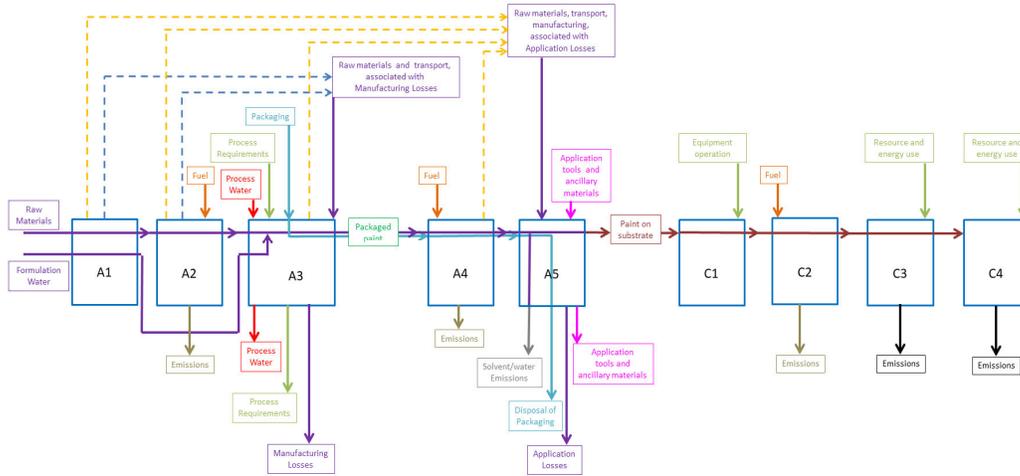
| | |
|---|--|
| <u>Time representativeness:</u> | 2024 |
| <u>Database(s) and LCA software used:</u> | Ecoinvent 3.10, Industry Data 2.0; Simapro v. 9.6.0.1. |
| <u>Electricity usage in A3:</u> | Residual mix of Sweden; Climate impact: 0.051 kg CO ₂ eq/kWh (GWP-GHG) |
| <u>Cut-off rules:</u> | Neglected flows in all modules are less than 1% of mass and energy. Neglect flows per life-cycle stages A1-A3, A4-A5 and C1-C4, aggregated are less than 5% of mass and energy. Cut-off rules do not apply to Module A1, which is 100% modelled. |
| <u>Allocation method:</u> | Mass allocation: A3 energy/material inputs and waste outputs are allocated by total products manufactured over 1 year |

Description of system boundaries:

The type of EPD is Cradle to Gate with Options (EPD Type b - Modules A1-A3, A4, A5, C1-C4, and D). B modules are excluded since no use phase maintenance, repair or replacement is expected during the technical life time.

System diagram:

Please refer the table below for A1-C4 life cycle stages.



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

| Module | Product stage | | | Distribution/installation stage | | Use stage | End of life stage | | | | Beyond product life cycle |
|----------------------|---------------------|-----------|---------------|---------------------------------|---------------------------|--|----------------------------|-----------|------------------|----------|---------------------------|
| | Raw material supply | Transport | Manufacturing | Transport | Construction installation | Use, maintenance, repair, replacement, refurbishment, operational energy and water use | De-construction demolition | Transport | Waste processing | Disposal | |
| | A1 | A2 | A3 | A4 | A5 | B1-B7 | C1 | C2 | C3 | C4 | D |
| Modules declared | X | X | X | X | X | ND | X | X | X | X | X |
| Geography | EU27 | EU27 | SE | EU27 | EU27 | | EU27 | EU27 | EU27 | EU27 | EU27 |
| Variation – products | 0.0% | | | | | | | | | | |
| Variation – sites | N/A | | | | | | | | | | |

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 |
|---|---|---|----------------|------------------------------|---|
| Binder | Database | Ecoinvent 3.10 | 2024 | Secondary data | 0% |
| Pigment | Database | Ecoinvent 3.10 | 2024 | Secondary data | 0% |
| Other Processes | Collected data, database, supplier data | EPD owner, Ecoinvent 3.10, packaging supplier | <5 years old | Primary data, Secondary data | 8% |
| Total share of primary data, of GWP-GHG results for A1-A3 | | | | | 8% |

The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

Manufacturing processes in module A3 are always less than 2 years old.

Summary of product and data quality assessment:

A water-borne all-round alkyd primer to ensure high quality result. .

Its life span is 15-20 years with a A1-A3 GWP total of 1.9 kg CO₂e/kg.

Primary data, such as water and electricity consumption and production waste, are based on measurements at the relevant manufacturing plant from 2024-01-01 to 2024-12-31. Except for A3 manufacturing processes, all upstream and downstream processes are based on secondary data from Ecoinvent 3.10 or Industry Data 2.0, or supplier data (for raw materials only)

According to Annex E, Table E.1 of EN 15804, the data quality levels of the datasets are classified as very good, good, or fair.

Content Declaration

| Product components | Weight, kg | Average Weight, kg | Post-consumer material, weight-% of product | Biogenic material, weight-% of product | Biogenic material, kg C/declared unit |
|--------------------|-----------------|--------------------|---|--|---------------------------------------|
| Binders | 2.2E-01~2.4E-01 | 2.3E-01 | - | - | - |
| Solvents | 2.3E-03~2.5E-03 | 2.4E-03 | - | - | - |
| Pigments | 2.9E-01~3.2E-01 | 3.0E-01 | - | - | - |
| Water | 4.4E-01~4.8E-01 | 4.6E-01 | - | - | - |
| Others | <0.001 | <0.001 | - | - | - |
| Total | 1.0E+00 | 1.0E+00 | 0 | 0 | 0 |

| Packaging materials <small>(Note 1)</small> | Weight, kg | Weight-% (versus the product) | Weight biogenic carbon, kg C/declared unit | PCR material, Weight-% in packaging material |
|---|------------|-------------------------------|--|--|
| Steel for cans/buckets | 3.3E-02 | 2.3% | 0.0E+00 | - |
| Polypropylene for cans/buckets | 1.7E-02 | 1.2% | 0.0E+00 | - |
| TOTAL | 5.0E-02 | 4% | 0.0E+00 | - |

Note 1: Packaging weights are the maximum of the individual products included in the EPD. Packaging weight percentages are assessed on the maximum product weight per declared unit given above.

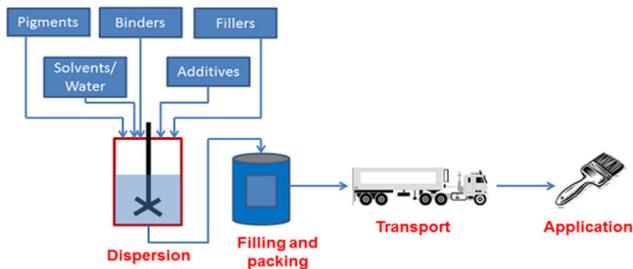
| Dangerous substances from the candidate list of SVHC for Authorisation | EC No. | CAS No. | Weight-% per declared unit |
|--|--------|---------|----------------------------|
| None | | | |

| Biogenic carbon content | Product's biogenic carbon content at the factory gate kg C |
|--|---|
| Biogenic carbon content in product (Note2) | 0.0E+00 |
| Biogenic carbon content in accompanying packaging (Note 3) | 0.0E+00 |

Note 2, Note 3: Biogenic carbon in the product and in the packaging is the minimum of the individual products and packagings included in the EPD

Manufacturing Process

The manufacturing process for coatings primarily involves the mixing and dispersing of raw materials into a homogeneous mixture. Raw materials include pigments and fillers, which provide colour, hiding, and gloss control; resins/binders, which dry to form a solid film and adhere the coating to the substrate and additives, which assist with various coating properties. The product is then shipped to the customers as a set for them to mix at the job site before application.



Assumptions beyond module A3

A4

Transportation distance is assumed to be 850 km according to EU geography and location of PPG factories. Transportation mode is assumed to be by Euro 5 16-32 metric ton truck.

A5

The following sub modules and assumptions are included in A5

1. Application tools and ancillaries: spray gun tip and spray gun operation electricity.
2. Disposal of application waste: environmental impact from manufacturing and content of estimated 30% application loss from overspray is included. Environmental impact of manufacturing, content and disposal of 1% product leftover is also included. Content of leftovers are assumed to be disposed of as nonhazardous waste to landfill.
3. Primary packaging (steel, plastic) are disposed as nonhazardous waste to landfill, application loss is considered.
4. VOC impact from estimated 30% overspray is included. VOCs were modelled as direct emission to the environment and characterized by their characterization factors according to EWEA Method EN 15804 A2 EPD Ev-DEC 1.16 ei3.10 SP9.6.

C1-C4

1. C1: Energy associated with demolition of the substrate structure is prorated for the mass of paint.
2. C2: Transportation to disposal is assumed to 80 km and transportation mode is assumed to be by Euro 5 16-32 metric ton truck.
3. C3: No waste processing options are considered.
4. C4: It is assumed that the paint will be disposed of along with the substrate in a landfill.

D

No benefits and loads beyond the product system boundary were declared since no reuse or recovery occurs for architectural coatings in general. In addition, since landfilling is assumed to be the waste disposal option in C4 module, no "useful energy carrier" is considered leaving the product system. Therefore, no benefit is claimed in module D.

List of excluded processes

1. A3: Raw materials and processing for the packaging (e.g. cardboard) of the paint containers (e.g., steel and plastic), and secondary packaging of paint finished products (e.g., plastic wraps for easy of transportation) are excluded from the system.
2. Personnel related processes, such as transportation of employees to and from work, are excluded.
3. The production and end-of-life processes of infrastructure or capital goods of PPG plants are excluded.

Environmental performance

Potential environmental impact – mandatory indicators according to EN 15804 based on EF3.1

Results per declared unit (1 kg of Tikkurila coating)

| Indicator | Unit | A1-A3 | A4 | A5 | B1 - B7 | C1 | C2 | C3 | C4 | D |
|--------------------------|------------------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| GWP - fossil | kg CO ₂ eq. | 1.9E+00 | 1.7E-01 | 9.1E-01 | ND | 4.1E-04 | 8.4E-03 | 0.0E+00 | 2.5E-02 | 0.0E+00 |
| GWP -biogenic | kg CO ₂ eq. | -1.7E-02 | 3.0E-05 | 2.1E-03 | ND | 9.5E-08 | 1.5E-06 | 0.0E+00 | 2.2E-02 | 0.0E+00 |
| GWP - luluc | kg CO ₂ eq. | 4.1E-03 | 5.6E-05 | 1.8E-03 | ND | 8.7E-08 | 2.7E-06 | 0.0E+00 | 3.2E-06 | 0.0E+00 |
| GWP - total | kg CO ₂ eq. | 1.9E+00 | 1.7E-01 | 9.2E-01 | ND | 4.1E-04 | 8.4E-03 | 0.0E+00 | 4.7E-02 | 0.0E+00 |
| ODP | kg CFC 11 eq. | 4.9E-08 | 3.4E-09 | 2.3E-08 | ND | 3.6E-11 | 1.7E-10 | 0.0E+00 | 1.8E-10 | 0.0E+00 |
| AP | mol H ⁺ eq. | 1.9E-02 | 5.3E-04 | 8.6E-03 | ND | 1.6E-06 | 2.6E-05 | 0.0E+00 | 4.1E-05 | 0.0E+00 |
| EP - freshwater | kg P eq. | 7.6E-05 | 1.3E-06 | 3.3E-05 | ND | 2.6E-09 | 6.4E-08 | 0.0E+00 | 6.6E-08 | 0.0E+00 |
| EP - marine | kg N eq. | 1.7E-03 | 1.8E-04 | 8.3E-04 | ND | 2.4E-07 | 8.7E-06 | 0.0E+00 | 1.6E-05 | 0.0E+00 |
| EP-terrestrial | mol N eq. | 1.9E-02 | 2.0E-03 | 9.2E-03 | ND | 2.5E-06 | 9.6E-05 | 0.0E+00 | 1.7E-04 | 0.0E+00 |
| POCP | kg NMVOC eq. | 7.8E-03 | 8.3E-04 | 3.7E-03 | ND | 3.8E-06 | 4.1E-05 | 0.0E+00 | 6.6E-05 | 0.0E+00 |
| ADP - minerals & metals* | kg Sb eq. | 2.4E-05 | 5.6E-07 | 1.1E-05 | ND | 2.4E-10 | 2.7E-08 | 0.0E+00 | 1.3E-08 | 0.0E+00 |
| ADP - fossil* | MJ | 3.7E+01 | 2.4E+00 | 1.7E+01 | ND | 2.4E-02 | 1.2E-01 | 0.0E+00 | 1.4E-01 | 0.0E+00 |
| WDP* | m ³ | 1.3E+00 | 9.9E-03 | 5.7E-01 | ND | 2.2E-05 | 4.9E-04 | 0.0E+00 | 6.4E-03 | 0.0E+00 |

* 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.

Statement: 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).

Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit

| Indicator | Unit | A1-A3 | A4 | A5 | B1 - B7 | C1 | C2 | C3 | C4 | D |
|---|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| GWP-GHG[1] | kg CO ₂ eq. | 2.0E+00 | 1.7E-01 | 9.2E-01 | ND | 4.1E-04 | 8.4E-03 | 0.0E+00 | 2.5E-02 | 0.0E+00 |
| Particulate Matter | disease inc. | 1.1E-07 | 1.3E-08 | 5.5E-08 | ND | 1.4E-11 | 6.5E-10 | 0.0E+00 | 9.3E-10 | 0.0E+00 |
| Ionizing radiation, human health (IRP) [2] | kBq U235 eq. | 1.4E-01 | 1.1E-03 | 6.2E-02 | ND | 3.2E-06 | 5.4E-05 | 0.0E+00 | 5.6E-05 | 0.0E+00 |
| Eco-toxicity - freshwater (ETP-fw) | CTUe | 5.7E+01 | 6.4E-01 | 2.5E+01 | ND | 1.1E-03 | 3.1E-02 | 0.0E+00 | 2.2E+00 | 0.0E+00 |
| Human toxicity, cancer effect (HTP-c) | CTUh | 1.7E-08 | 1.2E-09 | 7.8E-09 | ND | 1.6E-12 | 5.8E-11 | 0.0E+00 | 3.2E-11 | 0.0E+00 |
| Human toxicity, non-cancer effects (HTP-nc) | CTUh | 2.7E-08 | 1.5E-09 | 1.2E-08 | ND | 1.9E-12 | 7.3E-11 | 0.0E+00 | 5.4E-11 | 0.0E+00 |
| Land use related impacts/Soil quality (SQP) | dimensionless | 1.0E+01 | 1.4E+00 | 5.1E+00 | ND | 1.2E-03 | 7.0E-02 | 0.0E+00 | 3.1E-01 | 0.0E+00 |

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

Note 1: GWP-GHG is calculated as GWP - total minus any climate change impact (positive or negative) caused by biogenic carbon emission or uptake.

Note 2: This impact category deals mainly with the eventual impact of low doses 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.

LCIA results includes infrastructure processes embedded in the generic LCI datasets used in modeling the entire life cycle of our products (A1-C4), which may include manufacturing, transportation and energy infrastructure plants outside PPG's direct control. Infrastructure processes of PPG manufacturing plants are excluded.

Use of resources

Results per declared unit

| Indicator | Unit | A1-A3 | A4 | A5 | B1 - B7 | C1 | C2 | C3 | C4 | D |
|-----------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| PERE | MJ | 2.9E+00 | 4.1E-02 | 1.3E+00 | ND | 8.9E-05 | 2.0E-03 | 0.0E+00 | 2.0E-03 | 0.0E+00 |
| PERM | MJ | 0.0E+00 | 0.0E+00 | 0.0E+00 | ND | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 |
| PERT | MJ | 2.9E+00 | 4.1E-02 | 1.3E+00 | ND | 8.9E-05 | 2.0E-03 | 0.0E+00 | 2.0E-03 | 0.0E+00 |
| PENRE | MJ | 3.7E+01 | 2.4E+00 | 1.7E+01 | ND | 2.4E-02 | 1.2E-01 | 0.0E+00 | 1.4E-01 | 0.0E+00 |
| PENRM | MJ | 3.4E+01 | 0.0E+00 | 1.5E+01 | ND | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 |
| PENRT | MJ | 7.2E+01 | 2.4E+00 | 3.2E+01 | ND | 2.4E-02 | 1.2E-01 | 0.0E+00 | 1.4E-01 | 0.0E+00 |
| SM | kg | 0.0E+00 | 0.0E+00 | 0.0E+00 | ND | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 |
| RSF | MJ | 0.0E+00 | 0.0E+00 | 0.0E+00 | ND | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 |
| NRSF | MJ | 0.0E+00 | 0.0E+00 | 0.0E+00 | ND | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 |
| FW | m ³ | 3.5E-02 | 3.3E-04 | 1.5E-02 | ND | 7.8E-07 | 1.6E-05 | 0.0E+00 | 1.5E-04 | 0.0E+00 |

Waste production

Results per declared unit

| Indicator | Unit | A1-A3 | A4 | A5 | B1 - B7 | C1 | C2 | C3 | C4 | D |
|------------------------------|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Hazardous waste disposed | kg | 5.1E-03 | 7.2E-05 | 2.2E-03 | ND | 2.3E-07 | 3.5E-06 | 0.0E+00 | 3.8E-05 | 0.0E+00 |
| Non-hazardous waste disposed | kg | 3.0E+00 | 1.4E-01 | 1.4E+00 | ND | 3.5E-05 | 6.8E-03 | 0.0E+00 | 5.4E-01 | 0.0E+00 |
| Radioactive waste disposed | kg | 1.2E-04 | 7.6E-07 | 5.4E-05 | ND | 2.1E-09 | 3.7E-08 | 0.0E+00 | 3.9E-08 | 0.0E+00 |

Output flows

Results per declared unit

| Indicator | Unit | A1-A3 | A4 | A5 | B1 - B7 | C1 | C2 | C3 | C4 | D |
|-------------------------------|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Components for re-use | kg | 0.0E+00 | 0.0E+00 | 0.0E+00 | ND | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 |
| Material for recycling | kg | 0.0E+00 | 0.0E+00 | 0.0E+00 | ND | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 |
| Materials for energy recovery | kg | 0.0E+00 | 0.0E+00 | 0.0E+00 | ND | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 |
| Exported energy, electricity | MJ | 0.0E+00 | 0.0E+00 | 0.0E+00 | ND | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 |
| Exported energy, thermal | MJ | 0.0E+00 | 0.0E+00 | 0.0E+00 | ND | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 |

LCIA results includes infrastructure processes embedded in the generic LCI datasets used in modeling the entire life cycle of our products (A1-C4), which may include manufacturing, transportation and energy infrastructure plants outside PPG's direct control. Infrastructure processes of PPG manufacturing plants are excluded.

Abbreviations

| 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 |
| CEN | European Committee for Standardization |
| CPC | Central product classification |
| 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 |
| 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- | 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 | Use of renewable primary energy excluding renewable primary energy resources used as raw materials (MJ) |
| PERM | Use of renewable primary energy resources used as raw |
| PERT | Total use of renewable primary energy resources (MJ) |
| PENRE | Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials (MJ) |
| PENRM | Use of non-renewable primary energy resources used as raw materials (MJ) |
| PENRT | Total use of non-renewable primary energy resources (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) |

| Abbreviation | Definition |
|-----------------------------------|--|
| Waste Indicators | |
| HW | Hazardous Waste (disposed) (kg) |
| NHW | Non-Hazardous Waste (disposed) (kg) |
| RW | Radioactive Waste (disposed) (kg) |
| 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 |
| EU27 | Countries of the European Union |
| kWh | kilowatt-hour |

Other Environmental Performance Indicators

None included

Additional Environmental Information

None included

Additional Social and Economic Information

None included

Information Related to Sector EPD

Not applicable

Version history

Original Version of the EPD, 2025-09-15

References

General Programme Instructions of the International EPD System[®], Version 5.0.1

EPD International Product Category Rules (PCR) for Construction Products, PCR 2019:14, Version 2.0.1

ISO 14044:2006-10, Environmental Management — Life Cycle Assessment — Requirements and Instructions (ISO 14044:2006); EN ISO 14044:2006

EN 15804+A2:2019, Sustainability of construction works — Environmental Product Declarations — Core rules for the construction products product category