

# ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

|                          |                                      |
|--------------------------|--------------------------------------|
| Owner of the Declaration | James Halstead PLC                   |
| Publisher                | Institut Bauen und Umwelt e.V. (IBU) |
| Programme holder         | Institut Bauen und Umwelt e.V. (IBU) |
| Declaration number       | EPD-JHA-20250111-CBA1-EN             |
| Issue date               | 13.02.2025                           |
| Valid to                 | 12.02.2030                           |

**Polyflor Palettone PUR, Polyflor Prestige PUR and Polyflor  
Pearlazzo PUR**  
**James Halstead plc**

[www.ibu-epd.com](http://www.ibu-epd.com) | <https://epd-online.com>



General Information

James Halstead plc

Programme holder

IBU – Institut Bauen und Umwelt e.V.  
Hegelplatz 1  
10117 Berlin  
Germany

Declaration number

EPD-JHA-20250111-CBA1-EN

This declaration is based on the product category rules:

Floor coverings, 01.08.2021  
(PCR checked and approved by the SVR)

Issue date

13.02.2025

Valid to

12.02.2030



Dipl.-Ing. Hans Peters  
(Chairman of Institut Bauen und Umwelt e.V.)



Florian Pronold  
(Managing Director Institut Bauen und Umwelt e.V.)

Polyflor Palettone PUR, Polyflor Prestige PUR and Polyflor Pearlazzo PUR

Owner of the declaration

James Halstead PLC  
Beechfield, Hollinhurst Rd. .  
M261JN Whitefield, Manchester  
United Kingdom

Declared product / declared unit

1 m<sup>2</sup> of installed Polyflor Palettone PUR, Prestige PUR or Pearlazzo PUR floor covering.

Scope:

Polyflor Palettone PUR, Prestige PUR and Pearlazzo PUR from James Halstead plc, Manchester, UK. The declaration refers to a decorative homogeneous floor covering of thickness 2.0mm. The product is manufactured in Manchester, UK.  
The results in this core-EPD were calculated using an LCA tool verified by IBU in 2024.  
The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as *EN 15804*.

Verification

|                                                                                  |            |                                                |
|----------------------------------------------------------------------------------|------------|------------------------------------------------|
| The standard EN 15804 serves as the core PCR                                     |            |                                                |
| Independent verification of the declaration and data according to ISO 14025:2011 |            |                                                |
| <input type="checkbox"/>                                                         | internally | <input checked="" type="checkbox"/> externally |



Ms Emma Wilde,  
(Independent verifier)

## Product

### Product description/Product definition

Polyflor Palettone PUR, Prestige PUR and Pearlazzo PUR decorative vinyl sheet and tile floor covering of 2.0 mm thickness, manufactured in accordance with ISO 10581. The uppermost surface features a PUR reinforcement that protects the floor covering by resisting soiling and scuffing. For the placing on the market of the product in the European Union/European Free Trade Association (EU/EFTA) (with the exception of Switzerland) Regulation (EU) No. 305/2011 (CPR) applies. The product needs a declaration of performance taking into consideration EN 14041:2018 Resilient, textile, laminate and modular multilayer floor coverings. Essential characteristics, and the CE Marking. For the application and use the respective national provisions apply.

CE Declarations of Performance are available at [www.polyflor.com](http://www.polyflor.com) or [www.objectflor.de](http://www.objectflor.de).

### Application

Polyflor Palettone PUR, Prestige PUR and Pearlazzo PUR are attractive, high performance flexible vinyl sheets of mono-layer construction with a non-directional decoration, in a broad palette of colours. A low maintenance, hygienic flooring solution, suitable for the demanding healthcare sector, education, retail office and other commercial interiors. Polyflor Palettone PUR, Prestige PUR and Pearlazzo PUR are classified as 23,34,43 according to ISO 10874.

### Example of a use area: Polyflor Prestige PUR



### Technical Data

Product standards:

- ISO 10581 Resilient floor coverings - Homogeneous poly(vinyl chloride) floor covering - Specifications (Type I Binder content)

- ISO 10874 Resilient, textile and laminate floor coverings - Classification
- EN13501-1 Fire classification of construction products and building elements - Classification using data from reaction to fire tests
- EN13893 Resilient, laminate and textile floor coverings. Measurement of dynamic coefficient of friction on dry floor surfaces
- EN1815 Resilient and laminate floor coverings. Assessment of static electrical propensity

Polyflor Palettone PUR, Pearlazzo PUR and Prestige PUR are classified as B<sub>f1</sub>-s1 according to EN 13501-1 Fire classification of construction products and building elements.

Technical data sheets are available at [www.polyflor.com](http://www.polyflor.com) or [www.objectflor.de](http://www.objectflor.de).

### Constructional data

| Name                | Value                | Unit              |
|---------------------|----------------------|-------------------|
| Product thickness   | 2                    | mm                |
| Grammage            | 2950                 | g/m <sup>2</sup>  |
| Abrasion Class      | Type I               | -                 |
| Product Form        | Sheet & Tile         | -                 |
| Type of manufacture | Extrusion & Pressing | -                 |
| Density             | 1400                 | kg/m <sup>3</sup> |

Performance data of the product in accordance with the declaration of performance with respect to its essential characteristics according to EN 14041:2018 Resilient, textile, laminate and modular multilayer floor coverings. Essential characteristics.

### Example of a use area: Polyflor Pearlazzo PUR



## Base materials/Ancillary materials

| Name                   | Value | Unit |
|------------------------|-------|------|
| Polyvinyl Chloride     | 45-47 | %    |
| Plasticiser            | 15-17 | %    |
| Mineral Fillers        | 31-33 | %    |
| Titanium Dioxide       | 1-3   | %    |
| Epoxidised Ester Blend | 1-3   | %    |
| Stabiliser             | <1    | %    |
| Pigments               | <1    | %    |
| Additives              | <1    | %    |
| Polyurethane Coating   | <1    | %    |

The floor coverings can contain up to 25% of recycled material of the same formulation/ingredients which can consist of either or both of post industrial and post consumer material.

1) "This product/article/at least one partial article contains substances listed in the candidate list (date: 07/11/2024) exceeding 0.1 percentage by mass: no".

2) "This product contains other CMR substances in categories 1A or 1B which are not on the candidate list, exceeding 0.1 percentage by mass: no".

3) "Biocide products were added to this construction product or

it has been treated with biocide products (this then concerns a treated product as defined by the (EU) Ordinance on Biocide Products No. 528/2012): no".

## Period Under Review

The data collection period for the LCA calculation was 01/07/2023 to 30/06/2024.

## Reference service life

For this product, the stated Reference Service Life (RSL) is 1 year.

James Halstead plc recommend a service life of 30 years, which is based on their experience of flooring manufacture and supply. The recommended service life is applicable as long as the product use complies with that defined by EN 14041 and ISO 10874 in accordance with the Polyflor Palettone PUR, Prestige PUR and Pearlazzo PUR use classification (class 23, 34 and 43).

It should be noted, however, that the service life of a Homogeneous Polyvinyl chloride floor covering may vary depending on the amount & nature of floor traffic, the type & frequency of maintenance, and misuse of the product. Therefore, the RSL is stated as 1 year to allow the effects of maintenance (B2) to be calculated as required for the products anticipated useful life.

## LCA: Calculation rules

### Declared Unit

This declaration refers to a declared unit of 1 m<sup>2</sup> of installed Polyflor Palettone PUR, Pearlazzo PUR or Prestige PUR floor covering.

### Declared unit and mass reference

| Name            | Value | Unit              |
|-----------------|-------|-------------------|
| Declared unit   | 1     | m <sup>2</sup>    |
| Grammage        | 2.98  | kg/m <sup>2</sup> |
| Layer thickness | 0.002 | m                 |

The EPD results are calculated based on the measured weight of the declared floor covering provided in the table directly above. The grammage provided is the "construction data" table is the nominal weight for the declared product, which refers to the average/marketed weight.

### System boundary

The type of EPD according to EN 15804: "cradle to gate with options, modules C1-C4, and module D". The following modules are declared: A1-A3, C, D and additional modules: A4, A5, and B2.

The following life cycle stages are considered:

### Production - Modules A1-A3

The product stage includes:

- Raw material supply (A1): raw material extraction and processing including recycled content.
- Transport to the manufacturer (A2):
- Manufacturing (A3): manufacturing expenses of the products including packaging materials and consumption of electricity (0.39 kgCO<sub>2</sub>eq./kWh) and thermal energy (0.064 kgCO<sub>2</sub>eq./MJ).
- The product is manufactured in Manchester, UK.

### Construction Stage - Modules A4-A5

The construction process stage includes:

- Transport to the construction site (A4).
- Production and treatment of generated cutting waste at the installation and packaging material (A5). Benefits of potential avoided burdens due to energy substitution of electricity and thermal energy are declared in module D. It also includes the consumption of adhesive during installation.

### Use Stage - Module B2

The Use stage includes:

- Maintenance (B2): detergents, water and electricity consumption.
- Data averaged for standard combination of 80% manual cleaning and 20% electric cleaning.

### End-of-Life (EOL) Stage - Modules C1-C4

- Mechanical dismantling with electricity consumption (C1).
- Transport to EoL (C2): 25 km distance travelled via truck transport.
- EoL Scenario 0 (C3): 100% thermal treatment of the floor covering with energy recovery (including auxiliaries at installation).
- EoL Scenario 1 (C3/1): 100% recycling of the floor covering (including auxiliaries at installation).
- EoL Scenario 2 (C4): 100% landfill of the floor covering (including auxiliaries at installation).

### Benefits and Loads beyond the product system boundary

Benefits for potential avoided burdens during treatment of packaging materials, installation cuttings and/or auxiliaries (from module A5) due to energy substitution of electricity and thermal energy generation and/or material recycling under European condition are declared in Module D (duplicated in D, D/1 and D/2, respectively).

## Geographic Representativeness

Land or region, in which the declared product system is manufactured, used or handled at the end of the product's lifespan: Europe

## Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to *EN 15804* and the building context, respectively the product-specific characteristics of performance, are taken into account. Sphera LCA software (GaBi ts) content update package (CUP) version 2023.2.

## LCA: Scenarios and additional technical information

### Characteristic product properties of biogenic carbon

For 1 m<sup>2</sup> of Polyflor Palettone PUR, Polyflor Prestige PUR and Polyflor Pearlazzo PUR floor coverings, the biogenic carbon content is declared below:

### Information on describing the biogenic carbon content at factory gate

| Name                                              | Value  | Unit |
|---------------------------------------------------|--------|------|
| Biogenic carbon content in product                | 0.0592 | kg C |
| Biogenic carbon content in accompanying packaging | 0.0416 | kg C |

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

### Transport to the construction site (A4)

This declaration considers the transport of the floor covering product from the factory gate to an average European customer site calculated from a combination of haulier routes via truck, rail, and ship transport in module A4.

| Name                           | Value | Unit |
|--------------------------------|-------|------|
| Transport distance (via truck) | 482   | km   |
| Transport distance (via ship)  | 708   | km   |
| Transport distance (via rail)  | 0     | km   |

### Installation in the building (A5)

| Name                           | Value  | Unit              |
|--------------------------------|--------|-------------------|
| Installation cutting waste     | 6      | %                 |
| Adhesive (water based acrylic) | 0.3    | kg/m <sup>2</sup> |
| Paper & cardboard packaging    | 0.0321 | kg/m <sup>2</sup> |
| Wood packaging                 | 0.0467 | kg/m <sup>2</sup> |
| Plastic packaging (PE/PET/PS)  | 0.0016 | kg/m <sup>2</sup> |
| Paper/PE Composite packaging   | 0.0194 | kg/m <sup>2</sup> |

### Maintenance (B2)

This information refers to 1 year (RSL).

| Name                    | Value | Unit           |
|-------------------------|-------|----------------|
| Maintenance cycle       | 156   | Number/RSL     |
| Water consumption       | 0.003 | m <sup>3</sup> |
| Electricity consumption | 0.037 | MJ             |
| Auxiliary (detergent)   | 0.044 | kg             |

### End of Life (C1-C4)

| Name                                            | Value | Unit |
|-------------------------------------------------|-------|------|
| Electricity consumption for deconstruction (C1) | 0.09  | MJ   |
| Transport distance (via truck) (C2)             | 25    | km   |
| Energy recovery, (100%, scenario 0)             | 2.98  | kg   |
| Recycling (100%, Scenario 1)                    | 2.98  | kg   |
| Landfilling (100%, Scenario 2)                  | 2.98  | kg   |

### Recovery, Reuse and or Recycling potentials (D), relevant scenario information

Benefits for potential avoided burdens during treatment of packaging materials, installation cuttings and/or auxiliaries (from module A5) due to energy substitution of electricity and thermal energy generation and/or material recycling under European conditions are declared in module D (duplicated in modules D/1 and D/2) and affects only the rate of primary material (no secondary materials).

Loads and benefits beyond the product system boundary from thermal treatment of the floor covering with benefits for potential avoided burdens due to energy substitution of electricity and thermal energy under European conditions is declared in module D/1.

No benefits were accounted from the recycling EoL scenario (C3/1) in module D/1.

No benefits were accounted from the landfill EoL scenario (C4) in module D/2.

## LCA: Results

Results provided in this section are presented in relation to 1 m<sup>2</sup> of the Polyflor Palettone PUR, Polyflor Prestige PUR or Polyflor Pearlazzo PUR floor covering products. For the maintenance scenario (B2), the results refer to a period of one year. For the calculation of impacts of module B2 for a certain service life, the impacts results for module B2 have to be multiplied by the estimated service life in years.

For the End-of-Life (EoL) stage, three scenarios are considered:

- Scenario 0 (C3) considers 100% thermal treatment. Corresponding loads & benefits beyond system boundary are declared in Module D.
- Scenario 1 (C3/1) considers 100% recycling. Corresponding loads & benefits beyond system boundary are declared in Module D/1.
- Scenario 2 (C4) applies to 100% landfilling. Corresponding loads & benefits beyond system boundary are declared in Module D/2.

**DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE OR INDICATOR NOT DECLARED; MNR = MODULE NOT RELEVANT)**

| Product stage       |           |               | Construction process stage          |          | Use stage |             |        |             |               |                        |                       | End of life stage          |           |                  |          | Benefits and loads beyond the system boundaries |
|---------------------|-----------|---------------|-------------------------------------|----------|-----------|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------------------|-----------|------------------|----------|-------------------------------------------------|
| Raw material supply | Transport | Manufacturing | Transport from the gate to the site | 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                                               |
| X                   | X         | X             | X                                   | X        | MND       | X           | MNR    | MNR         | MNR           | MND                    | MND                   | X                          | X         | X                | X        | X                                               |

**RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 m<sup>2</sup> Polyflor Palettone PUR, Polyflor Pearlazzo PUR and Polyflor Prestige PUR**

| Parameter      | Unit                             | A1-A3     | A4        | A5       | B2       | C1       | C2       | C3       | C3/1     | C4        | D         | D/1       | D/2       |
|----------------|----------------------------------|-----------|-----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|
| GWP-total      | kg CO <sub>2</sub> eq            | 5.75E+00  | 1.45E-01  | 1.06E+00 | 3.39E-02 | 8.14E-03 | 6.21E-03 | 3.21E+00 | 2.17E-01 | 4.42E-01  | -1E+00    | -4.24E-01 | -4.24E-01 |
| GWP-fossil     | kg CO <sub>2</sub> eq            | 6.08E+00  | 1.45E-01  | 9.75E-01 | 3.37E-02 | 8.06E-03 | 6.2E-03  | 2.99E+00 | 0        | 2.25E-01  | -9.98E-01 | -4.22E-01 | -4.22E-01 |
| GWP-biogenic   | kg CO <sub>2</sub> eq            | -3.29E-01 | -1.14E-07 | 8.52E-02 | 2.11E-04 | 7.01E-05 | 3.24E-07 | 2.18E-01 | 2.17E-01 | 2.17E-01  | -4.56E-03 | -1.93E-03 | -1.93E-03 |
| GWP-luluc      | kg CO <sub>2</sub> eq            | 5.88E-03  | 1.42E-04  | 1.91E-03 | 1.99E-05 | 8.77E-07 | 7.16E-06 | 3.26E-04 | 0        | 1.86E-04  | -6.51E-05 | -2.76E-05 | -2.76E-05 |
| ODP            | kg CFC11 eq                      | 3.29E-11  | 1.75E-14  | 3.13E-12 | 7.26E-14 | 1.49E-13 | 7.72E-16 | 3.1E-12  | 0        | 3.79E-13  | -7.85E-12 | -3.33E-12 | -3.33E-12 |
| AP             | mol H <sup>+</sup> eq            | 1.76E-02  | 5.11E-04  | 1.73E-03 | 1.53E-04 | 1.72E-05 | 5.92E-06 | 1.08E-03 | 0        | 6.77E-04  | -1.25E-03 | -5.29E-04 | -5.29E-04 |
| EP-freshwater  | kg P eq                          | 9.51E-05  | 6.18E-07  | 7.8E-06  | 1.24E-07 | 3.01E-08 | 3.1E-08  | 1.28E-06 | 0        | 4.34E-05  | -1.62E-06 | -6.87E-07 | -6.87E-07 |
| EP-marine      | kg N eq                          | 6.19E-03  | 2.31E-04  | 5.9E-04  | 2.59E-05 | 4.12E-06 | 2.5E-06  | 3.74E-04 | 0        | 1.55E-04  | -3.65E-04 | -1.55E-04 | -1.55E-04 |
| EP-terrestrial | mol N eq                         | 6.62E-02  | 2.54E-03  | 6.76E-03 | 2.82E-04 | 4.31E-05 | 2.81E-05 | 4.54E-03 | 0        | 1.7E-03   | -3.91E-03 | -1.65E-03 | -1.65E-03 |
| POCP           | kg NMVOC eq                      | 2.07E-02  | 6.04E-04  | 1.87E-03 | 9.1E-05  | 1.1E-05  | 5.73E-06 | 1.03E-03 | 0        | 4.92E-04  | -1.02E-03 | -4.3E-04  | -4.3E-04  |
| ADPE           | kg Sb eq                         | 4.37E-06  | 9.43E-09  | 4.5E-07  | 6.61E-08 | 1.25E-09 | 4.13E-10 | 2.88E-08 | 0        | 5.97E-09  | -7.17E-08 | -3.04E-08 | -3.04E-08 |
| ADPF           | MJ                               | 1.47E+02  | 1.9E+00   | 1.56E+01 | 9.62E-01 | 1.7E-01  | 8.26E-02 | 6.89E+00 | 0        | 3.37E+00  | -1.84E+01 | -7.79E+00 | -7.79E+00 |
| WDP            | m <sup>3</sup> world eq deprived | 1.5E+00   | 7.37E-03  | 1.61E-01 | 1.1E-02  | 1.8E-03  | 3.67E-04 | 5.12E-01 | 0        | -3.18E-03 | -9.51E-02 | -4.03E-02 | -4.03E-02 |

GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential)

**RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 m<sup>2</sup> Polyflor Palettone PUR, Polyflor Pearlazzo PUR and Polyflor Prestige PUR**

| Parameter | Unit | A1-A3    | A4       | A5        | B2       | C1       | C2       | C3        | C3/1      | C4       | D         | D/1       | D/2       |
|-----------|------|----------|----------|-----------|----------|----------|----------|-----------|-----------|----------|-----------|-----------|-----------|
| PERE      | MJ   | 1.71E+01 | 7.21E-02 | 4.21E+00  | 8.05E-02 | 1.01E-01 | 3.53E-03 | 3.62E+00  | 0         | 3.04E-01 | -5.36E+00 | -2.27E+00 | -2.27E+00 |
| PERM      | MJ   | 3.28E+00 | 0        | -1.5E+00  | 0        | 0        | 0        | -1.78E+00 | -1.78E+00 | 0        | 0         | 0         | 0         |
| PETE      | MJ   | 2.04E+01 | 7.21E-02 | 2.71E+00  | 8.05E-02 | 1.01E-01 | 3.53E-03 | 1.84E+00  | -1.78E+00 | 3.04E-01 | -5.36E+00 | -2.27E+00 | -2.27E+00 |
| PENRE     | MJ   | 1.09E+02 | 2.04E+00 | 1.58E+01  | 9.62E-01 | 1.7E-01  | 8.87E-02 | 4.5E+01   | 0         | 3.37E+00 | -1.84E+01 | -7.8E+00  | -7.8E+00  |
| PENRM     | MJ   | 3.83E+01 | 0        | -2.16E-01 | 0        | 0        | 0        | -3.81E+01 | -3.81E+01 | 0        | 0         | 0         | 0         |
| PENRT     | MJ   | 1.48E+02 | 2.04E+00 | 1.56E+01  | 9.62E-01 | 1.7E-01  | 8.87E-02 | 6.89E+00  | -3.81E+01 | 3.37E+00 | -1.84E+01 | -7.8E+00  | -7.8E+00  |
| SM        | kg   | 2.78E-02 | 0        | 1.67E-03  | 0        | 0        | 0        | 0         | 0         | 0        | 0         | 2.98E+00  | 0         |
| RSF       | MJ   | 0        | 0        | 0         | 0        | 0        | 0        | 0         | 0         | 0        | 0         | 0         | 0         |
| NRSF      | MJ   | 0        | 0        | 0         | 0        | 0        | 0        | 0         | 0         | 0        | 0         | 0         | 0         |

|    |                |          |          |          |          |          |          |          |   |          |           |           |           |
|----|----------------|----------|----------|----------|----------|----------|----------|----------|---|----------|-----------|-----------|-----------|
| FW | m <sup>3</sup> | 5.53E-02 | 2.44E-04 | 5.87E-03 | 2.73E-04 | 8.19E-05 | 1.21E-05 | 1.27E-02 | 0 | 3.32E-05 | -4.34E-03 | -1.84E-03 | -1.84E-03 |
|----|----------------|----------|----------|----------|----------|----------|----------|----------|---|----------|-----------|-----------|-----------|

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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

## RESULTS OF THE LCA – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2:

### 1 m<sup>2</sup> Polyflor Palettone PUR, Polyflor Pearlazzo PUR and Polyflor Prestige PUR

| Parameter | Unit | A1-A3    | A4       | A5       | B2       | C1       | C2       | C3       | C3/1     | C4       | D         | D/1       | D/2       |
|-----------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|
| HWD       | kg   | 1.54E-06 | 5.83E-12 | 1.87E-06 | 3.05E-06 | 0        | 2.55E-13 | 8.36E-11 | 0        | 2.84E-10 | -9.82E-10 | -4.13E-10 | -4.13E-10 |
| NHWD      | kg   | 5.14E-01 | 1.67E-04 | 1.9E-01  | 3.6E-04  | 1.24E-04 | 7.72E-06 | 1.81E+00 | 0        | 3.27E+00 | -9.1E-03  | -3.85E-03 | -3.85E-03 |
| RWD       | kg   | 3.6E-03  | 5.8E-06  | 3.23E-04 | 2.15E-05 | 2.7E-05  | 2.54E-07 | 3.44E-04 | 0        | 3.99E-05 | -1.42E-03 | -6.03E-04 | -6.03E-04 |
| CRU       | kg   | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0         | 0         | 0         |
| MFR       | kg   | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 3.28E+00 | 0        | 0         | 0         | 0         |
| MER       | kg   | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0         | 0         | 0         |
| EEE       | MJ   | 0        | 0        | 6.47E-01 | 0        | 0        | 0        | 4.09E+00 | 0        | 0        | 0         | 0         | 0         |
| EET       | MJ   | 0        | 0        | 1.17E+00 | 0        | 0        | 0        | 7.38E+00 | 0        | 0        | 0         | 0         | 0         |

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy

## RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional:

### 1 m<sup>2</sup> Polyflor Palettone PUR, Polyflor Pearlazzo PUR and Polyflor Prestige PUR

| Parameter | Unit              | A1-A3    | A4       | A5       | B2       | C1       | C2       | C3       | C3/1 | C4       | D         | D/1       | D/2       |
|-----------|-------------------|----------|----------|----------|----------|----------|----------|----------|------|----------|-----------|-----------|-----------|
| PM        | Disease incidence | 2.95E-07 | 1.19E-08 | 2.61E-08 | 1.13E-09 | 1.45E-10 | 4.09E-11 | 2.11E-08 | 0    | 6.56E-09 | -1.06E-08 | -4.49E-09 | -4.49E-09 |
| IR        | kBq U235 eq       | 3.73E-01 | 4.88E-04 | 3.82E-02 | 2.98E-03 | 4.49E-03 | 2.15E-05 | 5.21E-02 | 0    | 5.9E-03  | -2.37E-01 | -1E-01    | -1E-01    |
| ETP-fw    | CTUe              | 6.13E+01 | 1.59E+00 | 6.02E+00 | 6.01E-01 | 4.72E-02 | 6.92E-02 | 3.73E+00 | 0    | 2.87E+00 | -2.57E+00 | -1.09E+00 | -1.09E+00 |
| HTP-c     | CTUh              | 1.93E-09 | 2.53E-11 | 2.17E-10 | 9.42E-12 | 2.5E-12  | 1.1E-12  | 1.56E-10 | 0    | 1.48E-10 | -2.04E-10 | -8.64E-11 | -8.64E-11 |
| HTP-nc    | CTUh              | 8.74E-08 | 5.74E-10 | 1.18E-08 | 2.03E-10 | 3.98E-11 | 2.56E-11 | 1.11E-08 | 0    | 1.18E-08 | -5.02E-09 | -2.12E-09 | -2.12E-09 |
| SQP       | SQP               | 6.29E+01 | 3.09E-01 | 1.02E+01 | 4.98E-02 | 6.66E-02 | 1.56E-02 | 1.64E+00 | 0    | 2.92E-01 | -3.52E+00 | -1.49E+00 | -1.49E+00 |

PM = Potential incidence of disease due to PM emissions; IR = Potential Human exposure efficiency relative to U235; ETP-fw = Potential comparative Toxic Unit for ecosystems; HTP-c = Potential comparative Toxic Unit for humans (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (not cancerogenic); SQP = Potential soil quality index

Disclaimer 1 – for the indicator “Potential Human exposure efficiency relative to U235”. 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 or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators “abiotic depletion potential for non-fossil resources”, “abiotic depletion potential for fossil resources”, “water (user) deprivation potential, deprivation-weighted water consumption”, “potential comparative toxic unit for ecosystems”, “potential comparative toxic unit for humans – cancerogenic”, “Potential comparative toxic unit for humans - not cancerogenic”, “potential soil quality index”. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

This EPD was created using a software tool.

## References

### Standards

#### EN 13501-1

Fire classification of construction products and building elements. Classification using data from fire resistance and/or smoke control tests, excluding ventilation services.

#### EN 13893

Resilient, laminate and textile floor coverings. Measurement of dynamic coefficient of friction on dry floor surfaces.

#### EN 14041

Resilient, textile, laminate and modular multilayer floor coverings. Essential characteristics.

#### EN 15804

Sustainability of construction works. Environmental product declarations. Core rules for the product category of construction products.

#### EN 1815

Resilient and laminate floor coverings. Assessment of static electrical propensity

#### ISO 10581

Resilient floor coverings — Homogeneous poly(vinyl chloride) floor covering — Specifications

#### ISO 10874

Resilient, textile and laminate floor coverings. Classification

#### ISO 10425

Environmental labels and declarations - Type III environmental declarations - Principles and procedures.

### Further References

#### IBU 2021

Institut Bauen und Umwelt e.V.: General Instructions for the EPD programme of Institut Bauen und Umwelt e.V., Version 2.0, Berlin: Institut Bauen und Umwelt e.V., 2021  
www.ibu-epd.com

#### **PCR Part A**

PCR - Part A: Calculation rules for the Life Cycle Assessment and Requirements on the Background Report, version 1.4, Institut Bauen und Umwelt e.V., 15.04.2024.

#### **PCR Part B**

PCR – Part B: Requirements of the EPD for Floor coverings, v10, Institut Bauen und Umwelt e.V., [www.bau-umwelt.com](http://www.bau-umwelt.com), 01.08.2021.

#### **Polyflor LCA tool**

LCA tool for PVC floor coverings

LCA Tool No.: IBU-JHA-202401-LT1-EN

Developed by Sphera Solutions

#### **Sphera LCA FE (GaBi ts)**

GaBi ts dataset documentation for the software-system and databases, LBP, University of Stuttgart and thinkstep, Leinfelden-Echterdingen, 2023 (<https://www.gabi-software.com/support/gabi>).

#### **Sphera LCA Calculator Software (GaBi Envision)**

GaBi Envision 5.0 Sphera Solution GmbH, the LCA, EPD and Ecodesign tool, <http://www.gabisoftware.com/international/software/gabi-envision/>, 2023



#### **Publisher**

Institut Bauen und Umwelt e.V.  
Hegelplatz 1  
10117 Berlin  
Germany

+49 (0)30 3087748- 0  
[info@ibu-epd.com](mailto:info@ibu-epd.com)  
[www.ibu-epd.com](http://www.ibu-epd.com)



#### **Programme holder**

Institut Bauen und Umwelt e.V.  
Hegelplatz 1  
10117 Berlin  
Germany

+49 (0)30 3087748- 0  
[info@ibu-epd.com](mailto:info@ibu-epd.com)  
[www.ibu-epd.com](http://www.ibu-epd.com)



#### **Author of the Life Cycle Assessment**

Sphera Solutions GmbH  
Hauptstraße 111- 113  
70771 Leinfelden-Echterdingen  
Germany

+49 711 341817-0  
[info@sphera.com](mailto:info@sphera.com)  
[www.sphera.com](http://www.sphera.com)



#### **Owner of the Declaration**

James Halstead PLC  
Beechfield, Hollinhurst Rd. .  
M261JN Whitefield, Manchester  
United Kingdom

+44 (0) 161 767 2500  
[enquiries@jameshalstead.plc.uk](mailto:enquiries@jameshalstead.plc.uk)  
[www.jameshalstead.com](http://www.jameshalstead.com)