

Result summary

Olefin Wallcovering 420 g/m²

Vescom BV

| | |
|---------------------|---------------|
| Calculation number: | ReTHiNK-55754 |
| Generation on: | 15-06-2024 |
| Issue date: | 15-06-2024 |
| Valid until: | 15-06-2029 |
| Status: | verified |

R<THiNK

1 General information

1.1 PRODUCT

Olefin Wallcovering 420 g/m2

1.2 VALIDITY

Issue date: 15-06-2024

Valid until: 15-06-2029

1.3 OWNER OF THE DECLARATION



Manufacturer: Vescom BV

Address: Sint Jozefstraat 20, 5753 AV Deurne

E-mail: sales@vescom.com

Website: www.vescom.com

Production location: Vescom BV

Address production location: Sint Jozefstraat 20, 5753 AV Deurne

1.4 VERIFICATION OF THE DECLARATION

The independent verification is in accordance with the ISO 14025:2011. The LCA is in compliance with ISO 14040:2006 and ISO 14044:2006. The EN 15804:2012+A2:2019 serves as the core PCR.

Internal External



Anne Kees Jeeninga, Advieslab

1.5 PRODUCT CATEGORY RULES

NMD Determination method Environmental performance Construction works v1.1 March 2022

1.6 FUNCTIONAL UNIT

m2 Wallcovering

Production (A1-A3) up to- and including end of life phase (C1-D) of one square meter of vinyl wallcovering. Including delivery (A4), mounting on the wall (A5), and maintenance during the product life cycle of 25 years (B1-B7). Emissions during the construction phase are not included.

Reference unit: square meter (m2)

1.7 CONVERSION FACTORS

| Description | Value | Unit |
|----------------|-------|------|
| Reference unit | 1 | m2 |

1 General information

| Description | Value | Unit |
|---------------------------|----------|------|
| Weight per reference unit | 0.419 | kg |
| Conversion factor to 1 kg | 2.386635 | m2 |

1.8 SCOPE OF DECLARATION AND SYSTEM BOUNDARIES

This is a Cradle to gate with options LCA. The life cycle stages included are as shown below:
 (X = module included, ND = module not declared)

| A1 | A2 | A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| X | X | X | X | X | X | X | X | ND | ND | ND | ND | X | X | X | X | X |

The modules of the EN15804 contain the following:

| | |
|---------------------------------|--|
| Module A1 = Raw material supply | Module B5 = Refurbishment |
| Module A2 = Transport | Module B6 = Operational energy use |
| Module A3 = Manufacturing | Module B7 = Operational water use |
| Module A4 = Transport | Module C1 = De-construction / Demolition |

| | |
|---|--|
| Module A5 = Construction - Installation process | Module C2 = Transport |
| Module B1 = Use | Module C3 = Waste Processing |
| Module B2 = Maintenance | Module C4 = Disposal |
| Module B3 = Repair | Module D = Benefits and loads beyond the product system boundaries |
| Module B4 = Replacement | |

1.9 COMPARABILITY

In principle, a comparison or assessment of the environmental impacts of different products is only possible if they have been prepared in accordance with EN 15804+A2. For the evaluation of the comparability, the following aspects have to be considered in particular: PCR used, functional or declared unit, geographical reference, the definition of the system boundary, declared modules, data selection (primary or secondary data, background database, data quality), scenarios used for use and disposal phases, and the life cycle inventory (data collection, calculation methods, allocations, validity period). PCRs and general program instructions of different EPD program operators may differ. Comparability needs to be evaluated. For further guidance, see EN 15804+A2 (5.3 Comparability of EPD for construction products) and ISO 14025 (6.7.2 Requirements for comparability).

2 Product

2.1 PRODUCT DESCRIPTION

Vescom Thermoplastic Polyolefin wallcovering consists of a TPO topcoat, printed with water-based inks on a non-woven backing. It is mainly used as a decorative wallcovering, mounted on interior walls with the use of Vescom adhesive.

The main component of Vescom Thermoplastic Polyolefin wallcovering is TPO. This TPO film is laminated to a non-woven substrate. The wallcovering is mounted on a wall with Vescom adhesive. Vescom TPO wallcovering comes in rolls with a width of 130cm.

Weight / m2 = ~400 gr.

2.2 DESCRIPTION PRODUCTION PROCESS

The water based inks are applied on the printing machines. The TPO foil is printed with water based ink on the front side. After that, the backing is laminated onto a non-woven backing and the pattern is embossed on the calender machines. The sides are cut off from

the product. The finished TPO wall-covering is wound up on cardboard tubes. Last step is inspecting and packing on the inspection tables.

Energy consumption is monitored on a monthly basis. No allocation takes place. Waste during the production process is based on actual quantities and monitored on a weekly base as percentage of the total output. This is included in the LCA calculation.

2.3 CONSTRUCTION DESCRIPTION

The wallcovering should be applied in sequence from one production lot. First make a strip placement plan. Where several rolls are to be applied, start with the highest roll number. Cut the strips at wall height + 4cm; this is to allow for trimming at ceiling and skirting level. Number the strips. Only use black graphite pencil for this purpose. Follow the directional hanging instructions and other instructions supplied in the roll. Place the plumb line (black graphite pencil) in such a manner that the material overlaps the corner / inside angle by 2 cm. Apply adhesive to the substrate using a short-haired synthetic roller in a width of strip + 20 cm.

3 Results

3.1 ENVIRONMENTAL IMPACT INDICATORS PER SQUARE METER

CORE ENVIRONMENTAL IMPACT INDICATORS EN15804+A2

| Abbr. | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | C1 | C2 | C3 | C4 | D | Total |
|-----------|----------------|----------|---------|----------|----------|----------|---------|---------|----------|---------|---------|---------|---------|----------|----------|----------|
| AP | mol H+ eqv. | 9.29E-3 | 2.50E-4 | 1.70E-3 | 1.12E-2 | 3.45E-7 | 1.95E-3 | 0.00E+0 | 1.56E-3 | 0.00E+0 | 0.00E+0 | 4.59E-5 | 1.46E-3 | 3.90E-6 | -5.73E-4 | 1.57E-2 |
| GWP-total | kg CO2 eqv. | 1.25E+0 | 3.70E-2 | 2.77E-1 | 1.57E+0 | 5.95E-5 | 5.83E-1 | 0.00E+0 | 2.35E-1 | 0.00E+0 | 0.00E+0 | 7.92E-3 | 8.37E-1 | 3.53E-3 | -5.04E-1 | 2.73E+0 |
| GWP-b | kg CO2 eqv. | -4.95E-2 | 2.39E-5 | -1.86E-2 | -6.81E-2 | 2.74E-8 | 3.40E-2 | 0.00E+0 | -5.88E-4 | 0.00E+0 | 0.00E+0 | 3.65E-6 | 6.40E-4 | 4.78E-6 | -5.02E-4 | -3.45E-2 |
| GWP-f | kg CO2 eqv. | 1.30E+0 | 3.69E-2 | 2.94E-1 | 1.63E+0 | 5.94E-5 | 5.48E-1 | 0.00E+0 | 2.35E-1 | 0.00E+0 | 0.00E+0 | 7.92E-3 | 8.36E-1 | 3.53E-3 | -5.03E-1 | 2.76E+0 |
| GWP-luluc | kg CO2 eqv. | 4.07E-3 | 1.20E-5 | 1.46E-2 | 1.87E-2 | 2.18E-8 | 1.14E-3 | 0.00E+0 | 9.82E-5 | 0.00E+0 | 0.00E+0 | 2.90E-6 | 3.46E-4 | 2.13E-7 | -5.82E-5 | 2.02E-2 |
| EP-m | kg N eqv. | 1.12E-3 | 7.85E-5 | 2.59E-4 | 1.46E-3 | 1.21E-7 | 2.98E-4 | 0.00E+0 | 1.99E-4 | 0.00E+0 | 0.00E+0 | 1.62E-5 | 3.01E-4 | 2.15E-6 | -1.48E-4 | 2.13E-3 |
| EP-fw | kg P eqv. | 6.35E-5 | 2.84E-7 | 1.82E-5 | 8.20E-5 | 6.00E-10 | 1.30E-5 | 0.00E+0 | 1.04E-5 | 0.00E+0 | 0.00E+0 | 7.99E-8 | 1.29E-5 | 7.79E-9 | -2.40E-6 | 1.16E-4 |
| EP-T | mol N eqv. | 1.23E-2 | 8.67E-4 | 3.23E-3 | 1.64E-2 | 1.34E-6 | 3.32E-3 | 0.00E+0 | 3.14E-3 | 0.00E+0 | 0.00E+0 | 1.78E-4 | 3.35E-3 | 1.42E-5 | -1.63E-3 | 2.48E-2 |
| ODP | kg CFC 11 eqv. | 1.41E-7 | 8.61E-9 | 3.41E-8 | 1.83E-7 | 1.31E-11 | 8.05E-8 | 0.00E+0 | 1.85E-8 | 0.00E+0 | 0.00E+0 | 1.75E-9 | 1.35E-7 | 1.37E-10 | -8.42E-8 | 3.35E-7 |
| POCP | kg NMVOC eqv. | 4.67E-3 | 2.50E-4 | 8.45E-4 | 5.77E-3 | 3.82E-7 | 1.06E-3 | 0.00E+0 | 6.27E-4 | 0.00E+0 | 0.00E+0 | 5.09E-5 | 9.00E-4 | 4.82E-6 | -5.38E-4 | 7.87E-3 |
| ADP-f | MJ | 3.01E+1 | 5.70E-1 | 4.34E+0 | 3.50E+1 | 8.97E-4 | 4.85E+0 | 0.00E+0 | 2.46E+0 | 0.00E+0 | 0.00E+0 | 1.19E-1 | 3.04E+0 | 1.05E-2 | -8.79E+0 | 3.67E+1 |
| ADP-mm | kg Sb-eqv. | 1.07E-4 | 6.41E-7 | 1.48E-5 | 1.23E-4 | 1.51E-9 | 1.01E-5 | 0.00E+0 | 1.74E-5 | 0.00E+0 | 0.00E+0 | 2.01E-7 | 5.29E-6 | 4.73E-9 | -1.14E-6 | 1.55E-4 |

AP=Acidification (AP) | GWP-total=Global warming potential (GWP-total) | GWP-b=Global warming potential - Biogenic (GWP-b) | GWP-f=Global warming potential - Fossil (GWP-f) | GWP-luluc=Global warming potential - Land use and land use change (GWP-luluc) | EP-m=Eutrophication marine (EP-m) | EP-fw=Eutrophication, freshwater (EP-fw) | EP-T=Eutrophication, terrestrial (EP-T) | ODP=Ozone depletion (ODP) | POCP=Photochemical ozone formation - human health (POCP) | ADP-f=Resource use, fossils (ADP-f) | ADP-mm=Resource use, minerals and metals (ADP-mm) | WDP=Water use (WDP)

3 Results

| Abbr. | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | C1 | C2 | C3 | C4 | D | Total |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|
| | m3 | | | | | | | | | | | | | | | |
| WDP | world eqv. | 1.03E+0 | 1.82E-3 | 1.65E-1 | 1.19E+0 | 3.21E-6 | 2.27E-1 | 0.00E+0 | 1.82E-1 | 0.00E+0 | 0.00E+0 | 4.27E-4 | 2.21E-1 | 4.50E-4 | -1.04E-1 | 1.72E+0 |

AP=Acidification (AP) | GWP-total=Global warming potential (GWP-total) | GWP-b=Global warming potential - Biogenic (GWP-b) | GWP-f=Global warming potential - Fossil (GWP-f) | GWP-luluc=Global warming potential - Land use and land use change (GWP-luluc) | EP-m=Eutrophication marine (EP-m) | EP-fw=Eutrophication, freshwater (EP-fw) | EP-T=Eutrophication, terrestrial (EP-T) | ODP=Ozone depletion (ODP) | POCP=Photochemical ozone formation - human health (POCP) | ADP-f=Resource use, fossils (ADP-f) | ADP-mm=Resource use, minerals and metals (ADP-mm) | WDP=Water use (WDP)

ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS EN15804+A2

| Abbr. | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | C1 | C2 | C3 | C4 | D | Total |
|--------|-------------------|---------|----------|----------|---------|----------|----------|---------|----------|---------|---------|----------|----------|----------|-----------|---------|
| ETP-fw | CTUe | 2.46E+1 | 4.55E-1 | 1.00E+1 | 3.50E+1 | 8.00E-4 | 2.91E+1 | 0.00E+0 | 9.83E+0 | 0.00E+0 | 0.00E+0 | 1.06E-1 | 5.60E+1 | 1.62E-1 | -1.25E+0 | 1.29E+2 |
| PM | disease incidence | 6.61E-8 | 3.29E-9 | 1.30E-8 | 8.24E-8 | 5.35E-12 | 1.40E-8 | 0.00E+0 | 1.33E-8 | 0.00E+0 | 0.00E+0 | 7.12E-10 | 1.12E-8 | 7.29E-11 | -2.43E-9 | 1.19E-7 |
| HTP-c | CTUh | 1.28E-9 | 1.23E-11 | 2.46E-10 | 1.54E-9 | 2.59E-14 | 3.20E-10 | 0.00E+0 | 1.85E-10 | 0.00E+0 | 0.00E+0 | 3.45E-12 | 2.95E-10 | 3.12E-13 | -5.63E-11 | 2.29E-9 |
| HTP-nc | CTUh | 2.41E-8 | 5.10E-10 | 6.01E-9 | 3.07E-8 | 8.75E-13 | 9.34E-9 | 0.00E+0 | 5.32E-9 | 0.00E+0 | 0.00E+0 | 1.16E-10 | 1.38E-8 | 3.21E-11 | -1.36E-9 | 5.79E-8 |
| IR | kBq U235 eqv. | 6.68E-2 | 2.48E-3 | 1.12E-2 | 8.06E-2 | 3.76E-6 | 1.37E-2 | 0.00E+0 | 6.14E-3 | 0.00E+0 | 0.00E+0 | 5.00E-4 | 1.31E-2 | 4.10E-5 | -4.78E-3 | 1.09E-1 |
| SQP | Pt | 1.16E+1 | 6.12E-1 | 5.73E+0 | 1.80E+1 | 7.78E-4 | 2.03E+0 | 0.00E+0 | 2.20E+0 | 0.00E+0 | 0.00E+0 | 1.04E-1 | 9.57E-1 | 2.49E-2 | -1.84E+0 | 2.15E+1 |

ETP-fw=Ecotoxicity, freshwater (ETP-fw) | PM=Particulate Matter (PM) | HTP-c=Human toxicity, cancer (HTP-c) | HTP-nc=Human toxicity, non-cancer (HTP-nc) | IR=Ionising radiation, human health (IR) | SQP=Land use (SQP)

CLASSIFICATION OF DISCLAIMERS TO THE DECLARATION OF CORE AND ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS

| ILCD classification | Indicator | Disclaimer |
|---------------------|--------------------------------|------------|
| ILCD type / level 1 | Global warming potential (GWP) | None |

3 Results

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

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

Disclaimer 2 – The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

CORE ENVIRONMENTAL IMPACT INDICATORS EN15804+A1

| Abbr. | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | C1 | C2 | C3 | C4 | D | Total |
|-------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|
| ADPE | Kg Sb | 1.07E-4 | 6.41E-7 | 1.48E-5 | 1.23E-4 | 1.51E-9 | 1.01E-5 | 0.00E+0 | 1.74E-5 | 0.00E+0 | 0.00E+0 | 2.01E-7 | 5.29E-6 | 4.73E-9 | -1.14E-6 | 1.55E-4 |

ADPE=Depletion of abiotic resources-elements | GWP=Global warming | ODP=Ozone layer depletion | POCP=Photochemical oxidants creation | AP=Acidification of soil and water | EP=Eutrophication

3 Results

| Abbr. | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | C1 | C2 | C3 | C4 | D | Total |
|-------|------------------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|----------|----------|---------|
| GWP | Kg CO2 Equiv. | 1.27E+0 | 3.66E-2 | 2.94E-1 | 1.60E+0 | 5.89E-5 | 5.43E-1 | 0.00E+0 | 2.33E-1 | 0.00E+0 | 0.00E+0 | 7.85E-3 | 8.32E-1 | 3.05E-3 | -4.97E-1 | 2.72E+0 |
| ODP | Kg CFC-11 Equiv. | 1.29E-7 | 6.86E-9 | 3.22E-8 | 1.68E-7 | 1.05E-11 | 7.91E-8 | 0.00E+0 | 1.63E-8 | 0.00E+0 | 0.00E+0 | 1.39E-9 | 1.36E-7 | 1.10E-10 | -7.74E-8 | 3.23E-7 |
| POCP | Kg Ethene Equiv. | 1.04E-3 | 2.45E-5 | 1.61E-4 | 1.22E-3 | 3.56E-8 | 1.86E-4 | 0.00E+0 | 8.43E-5 | 0.00E+0 | 0.00E+0 | 4.74E-6 | 9.03E-5 | 8.34E-7 | -8.98E-5 | 1.50E-3 |
| AP | Kg SO2 Equiv. | 7.96E-3 | 1.92E-4 | 1.38E-3 | 9.53E-3 | 2.59E-7 | 1.64E-3 | 0.00E+0 | 1.24E-3 | 0.00E+0 | 0.00E+0 | 3.45E-5 | 1.19E-3 | 2.97E-6 | -4.53E-4 | 1.32E-2 |
| EP | Kg PO43- Equiv. | 7.08E-4 | 3.26E-5 | 1.96E-4 | 9.37E-4 | 5.09E-8 | 1.67E-4 | 0.00E+0 | 1.34E-4 | 0.00E+0 | 0.00E+0 | 6.78E-6 | 1.56E-4 | 1.01E-6 | -6.34E-5 | 1.34E-3 |

ADPE=Depletion of abiotic resources-elements | GWP=Global warming | ODP=Ozone layer depletion | POCP=Photochemical oxidants creation | AP=Acidification of soil and water | EP=Eutrophication

NATIONAL ANNEX NMD

| Abbr. | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | C1 | C2 | C3 | C4 | D | Total |
|-------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|
| ADPF | Kg Sb | 1.47E-2 | 2.71E-4 | 2.16E-3 | 1.71E-2 | 4.33E-7 | 2.46E-3 | 0.00E+0 | 1.35E-3 | 0.00E+0 | 0.00E+0 | 5.77E-5 | 1.63E-3 | 5.07E-6 | -4.68E-3 | 1.79E-2 |
| HTP | kg 1.4 DB | 4.69E-1 | 1.76E-2 | 9.92E-2 | 5.86E-1 | 2.48E-5 | 1.43E-1 | 0.00E+0 | 1.50E-1 | 0.00E+0 | 0.00E+0 | 3.31E-3 | 1.54E-1 | 3.07E-4 | -3.91E-2 | 9.97E-1 |
| FAETP | kg 1.4 DB | 5.12E-2 | 4.66E-4 | 1.06E-2 | 6.23E-2 | 7.25E-7 | 9.59E-3 | 0.00E+0 | 2.13E-3 | 0.00E+0 | 0.00E+0 | 9.65E-5 | 3.59E-3 | 7.68E-5 | -5.88E-4 | 7.72E-2 |
| MAETP | kg 1.4 DB | 6.28E+1 | 1.83E+0 | 1.11E+1 | 7.57E+1 | 2.61E-3 | 1.71E+1 | 0.00E+0 | 8.41E+0 | 0.00E+0 | 0.00E+0 | 3.47E-1 | 1.65E+1 | 9.62E-2 | -2.05E+0 | 1.16E+2 |

ADPF=Depletion of abiotic resources-fossil fuels | HTP=Human toxicity | FAETP=Ecotoxicity, fresh water | MAETP=Ecotoxicity, marine water (MAETP) | TETP=Ecotoxicity, terrestrial

3 Results

| Abbr. | Unit | A1 | A2 | A3 | A1- A3 | A4 | A5 | B1 | B2 | B3 | C1 | C2 | C3 | C4 | D | Total |
|-------|--------------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|
| TETP | kg 1.4 DB | 2.21E-3 | 5.64E-5 | 1.84E-3 | 4.10E-3 | 8.77E-8 | 6.41E-4 | 0.00E+0 | 4.42E-4 | 0.00E+0 | 0.00E+0 | 1.17E-5 | 6.98E-4 | 1.02E-6 | -1.90E-4 | 5.71E-3 |

ADPF=Depletion of abiotic resources-fossil fuels | **HTP**=Human toxicity | **FAETP**=Ecotoxicity, fresh water | **MAETP**=Ecotoxicity, marine water (MAETP) | **TETP**=Ecotoxicity, terrestrial

3.2 INDICATORS DESCRIBING RESOURCE USE AND ENVIRONMENTAL INFORMATION BASED ON LIFE CYCLE INVENTORY (LCI)

PARAMETERS DESCRIBING RESOURCE USE

| Abbr. | Unit | A1 | A2 | A3 | A1- A3 | A4 | A5 | B1 | B2 | B3 | C1 | C2 | C3 | C4 | D | Total |
|-------|------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|
| PERE | MJ | 1.01E+0 | 7.02E-3 | 1.42E+0 | 2.44E+0 | 1.12E-5 | 3.58E-1 | 0.00E+0 | 3.12E-1 | 0.00E+0 | 0.00E+0 | 1.49E-3 | 3.35E-1 | 1.81E-4 | -3.62E-1 | 3.09E+0 |
| PERM | MJ | 0.00E+0 | 0.00E+0 | 3.35E-1 | 3.35E-1 | 0.00E+0 | 1.68E-2 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 3.52E-1 |
| PERT | MJ | 2.50E+0 | 7.02E-3 | 1.92E+0 | 4.43E+0 | 1.12E-5 | 4.58E-1 | 0.00E+0 | 3.12E-1 | 0.00E+0 | 0.00E+0 | 1.49E-3 | 3.35E-1 | 1.81E-4 | -3.62E-1 | 5.18E+0 |
| PENRE | MJ | 4.13E+0 | 6.06E-1 | 1.55E+0 | 6.29E+0 | 9.52E-4 | 3.62E+0 | 0.00E+0 | 2.64E+0 | 0.00E+0 | 0.00E+0 | 1.27E-1 | 3.22E+0 | 1.11E-2 | -9.27E+0 | 6.64E+0 |
| PENRM | MJ | 1.05E+0 | 0.00E+0 | 1.21E-1 | 1.17E+0 | 0.00E+0 | 5.98E-2 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | -4.41E-1 | 7.87E-1 |
| PENRT | MJ | 3.22E+1 | 6.06E-1 | 4.64E+0 | 3.74E+1 | 9.52E-4 | 5.18E+0 | 0.00E+0 | 2.64E+0 | 0.00E+0 | 0.00E+0 | 1.27E-1 | 3.22E+0 | 1.11E-2 | -9.71E+0 | 3.89E+1 |
| SM | Kg | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 |
| RSF | MJ | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 |
| NRSF | MJ | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 |
| FW | M3 | 2.63E-2 | 6.37E-5 | 4.78E-3 | 3.12E-2 | 1.09E-7 | 5.99E-3 | 0.00E+0 | 4.79E-3 | 0.00E+0 | 0.00E+0 | 1.45E-5 | 5.96E-3 | 1.09E-5 | -1.18E-3 | 4.68E-2 |

PERE=renewable primary energy ex. raw materials | **PERM**=renewable primary energy used as raw materials | **PERT**=renewable primary energy total | **PENRE**=non-renewable primary energy ex. raw materials | **PENRM**=non-renewable primary energy used as raw materials | **PENRT**=non-renewable primary energy total | **SM**=use of secondary material | **RSF**=use of renewable secondary fuels | **NRSF**=use of non-renewable secondary fuels | **FW**=use of net fresh water

3 Results

OTHER ENVIRONMENTAL INFORMATION DESCRIBING WASTE CATEGORIES

| Abbr. | Unit | A1 | A2 | A3 | A1- A3 | A4 | A5 | B1 | B2 | B3 | C1 | C2 | C3 | C4 | D | Total |
|-------|------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|
| HWD | Kg | 1.55E-5 | 1.35E-6 | 1.12E-5 | 2.81E-5 | 2.27E-9 | 5.05E-6 | 0.00E+0 | 4.29E-6 | 0.00E+0 | 0.00E+0 | 3.03E-7 | 4.96E-6 | 1.60E-8 | -1.06E-5 | 3.21E-5 |
| NHWD | Kg | 2.81E-1 | 4.62E-2 | 5.53E-2 | 3.82E-1 | 5.69E-5 | 8.81E-2 | 0.00E+0 | 4.48E-2 | 0.00E+0 | 0.00E+0 | 7.57E-3 | 4.97E-2 | 4.20E-2 | -7.19E-3 | 6.07E-1 |
| RWD | Kg | 7.05E-5 | 3.89E-6 | 1.17E-5 | 8.61E-5 | 5.89E-9 | 1.36E-5 | 0.00E+0 | 7.06E-6 | 0.00E+0 | 0.00E+0 | 7.84E-7 | 1.09E-5 | 6.24E-8 | -5.72E-6 | 1.13E-4 |

HWD=hazardous waste disposed | **NHWD**=non hazardous waste disposed | **RWD**=radioactive waste disposed

ENVIRONMENTAL INFORMATION DESCRIBING OUTPUT FLOWS

| Abbr. | Unit | A1 | A2 | A3 | A1- A3 | A4 | A5 | B1 | B2 | B3 | C1 | C2 | C3 | C4 | D | Total |
|-------|------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| CRU | Kg | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 |
| MFR | Kg | 0.00E+0 | 0.00E+0 | 2.54E-3 | 2.54E-3 | 0.00E+0 | 2.66E-2 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 2.09E-2 | 0.00E+0 | 0.00E+0 | 5.01E-2 |
| MER | Kg | 0.00E+0 | 0.00E+0 | 3.98E-5 | 3.98E-5 | 0.00E+0 | 1.99E-6 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 4.17E-5 |
| EE | MJ | 0.00E+0 | 0.00E+0 | 5.85E-1 | 5.85E-1 | 0.00E+0 | 8.55E-5 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 5.48E+0 | 6.06E+0 |
| EET | MJ | 0.00E+0 | 0.00E+0 | 3.70E-1 | 3.70E-1 | 0.00E+0 | 5.41E-5 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 3.46E+0 | 3.84E+0 |
| EEE | MJ | 0.00E+0 | 0.00E+0 | 2.15E-1 | 2.15E-1 | 0.00E+0 | 3.14E-5 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 2.01E+0 | 2.23E+0 |

CRU=Components for re-use | **MFR**=Materials for recycling | **MER**=Materials for energy recovery | **EE**=Exported energy | **EET**=Exported Energy Thermic | **EEE**=Exported Energy Electric

3 Results

3.3 INFORMATION ON BIOGENIC CARBON CONTENT PER SQUARE METER

BIOGENIC CARBON CONTENT

The following Information describes the biogenic carbon content in (the main parts of) the product at the factory gate per square meter:

| Biogenic carbon content | Amount | Unit |
|---|----------|------|
| Biogenic carbon content in the product | 0 | kg C |
| Biogenic carbon content in accompanying packaging | 0.009577 | kg C |

UPTAKE OF BIOGENIC CARBON DIOXIDE

The following amount carbon dioxide uptake is taken into account. Related uptake and release of carbon dioxide in downstream processes are not taken into account in this number although they do appear in the presented results.

| Uptake Biogenic Carbon dioxide | Amount | Unit |
|--------------------------------|---------|-------------------|
| Packaging | 0.03512 | kg CO2 (biogenic) |

3 Results

3.4 ENVIRONMENTAL COST INDICATOR NL PER SQUARE METER

Using the environmental cost indicator (ECI) method, which is presented in the NMD Determination Method (2020), the results are aggregated to the single-point score. The ECI is a relevant valuation method, especially in the Dutch construction sector. In the Netherlands, it is a prerequisite for public tenders. The aim of the indicator is to show the shadow price for environmental impacts of a product or project. The application of single-point scores is an additional assessment tool for eco-balance results. However, it must be pointed out that weightings are always based on a value maintenance and not on a scientific basis (EN 14040). The ECI results are shown in the following table.

| Module EN15804 | ECI NL | Share in total (%) |
|---|---------------|--------------------|
| A1 Raw Materials Supply | € 0.16 | 50,3 % |
| A2 Transport | € 0.00 | 1,5 % |
| A3 Manufacturing | € 0.03 | 10,7 % |
| A4 Transport from the gate to the site | € 0.00 | 0,0 % |
| A5 Construction - Installation process | € 0.05 | 16,4 % |
| B1 Use | € 0.00 | 0,0 % |
| B2 Maintenance | € 0.03 | 10,5 % |
| B3 Repair | € 0.00 | 0,0 % |
| C1 De-construction / demolition | € 0.00 | 0,0 % |
| C2 Transport | € 0.00 | 0,3 % |
| C3 Waste processing | € 0.06 | 20,6 % |
| C4 Disposal | € 0.00 | 0,1 % |
| D Benefits and loads beyond the product system boundary | € -0.03 | -10,3 % |
| ECI NL per functional unit | € 0.31 | |

4 Contact information

Publisher

Operator

Owner of declaration

VESCOM

Vescom BV
Sint Jozefstraat 20
5753 AV Deurne, NL

E-mail:
sales@vescom.com

Website:
www.vescom.com

Stichting NMD
Visseringlaan 22b
2288 ER Rijswijk, NL

E-mail:
info@milieudatabase.nl

Website:
www.milieudatabase.nl

VESCOM

Vescom BV
Sint Jozefstraat 20
5753 AV Deurne, NL

E-mail:
sales@vescom.com

Website:
www.vescom.com