

Environmental Product Declaration



In accordance with ISO 14025 and EN 15804:2012+A2:2019 for:

Plastic reinforcement spacers and nearby products for construction purposes

from

Eurospacers AB



Programme:

The International EPD® System, www.environdec.com

Programme operator:

EPD International AB

EPD registration number:

S-P-07203

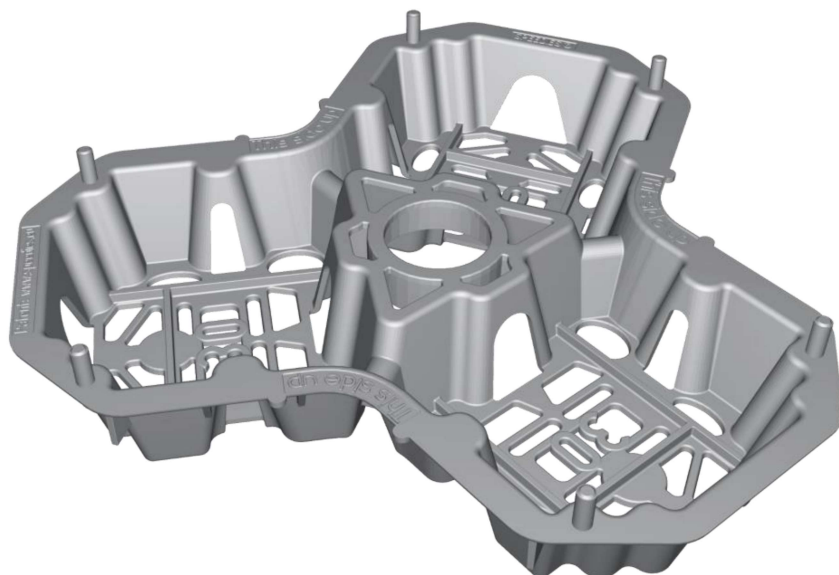
Publication date:

2022-10-11

Valid until:

2027-09-25

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com



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: | info@environdec.com |

| |
|---|
| 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): PCR 2019:14 version 1.11 (EPD International, 2021a) |
| PCR review was conducted by: Martin Erlandsson, IVL Swedish Environmental Research Institute, martin.erlandsson@ivl.se |
| Life Cycle Assessment (LCA) |
| LCA accountability: Pär Lindman, Miljögiraff AB |
| 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 individual verifier |
| Third-party verifier: Dr Hudai Kara, Metsims Sustainability Consulting, www.metsims.com , Oxford, U.K. Approved by: The International EPD® System |
| Procedure for follow-up of data during EPD validity involves third party verifier: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD: Eurospacers AB

Contact: Stefan Andersson

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Phone: +46 (0)31 757 67 03

Description of the organisation: Eurospacers AB is a manufacturer of reinforcement spacers and related products in plastic for the construction and concrete industry, with office, warehouse and manufacturing in Gothenburg Sweden.

Name and location of production site(s): Ålegårdsgatan 5, 431 50 Mölndal, Sweden

Product information

Product name: Plastic-spacers and similar products of different forms.

Product description: The function of the spacers is to give a distance for the steel reinforcement to the outer part of the concrete and by this protect the steel from moisture and corrosion. Different spacers with the same function can be foundations spacers, ceiling spacers, wheel spacers and end-cap spacers, while other products like e.g. wedges, shims and insulation nails are used for other purposes.

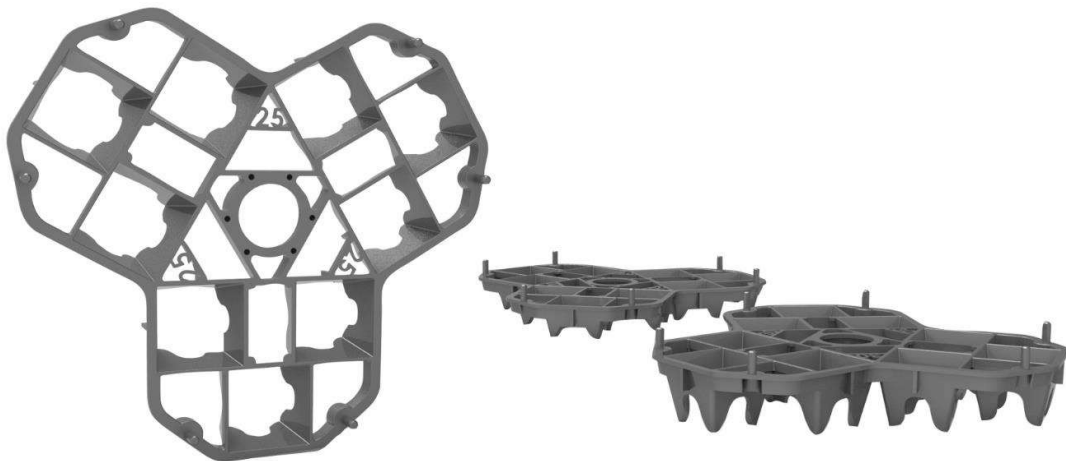
All products from Eurospacers that this EPD covers can be seen listed with names under Additional Information.

UN CPC code: 54530

Geographical scope: Manufacturing in Sweden and End-of-Life in Europe



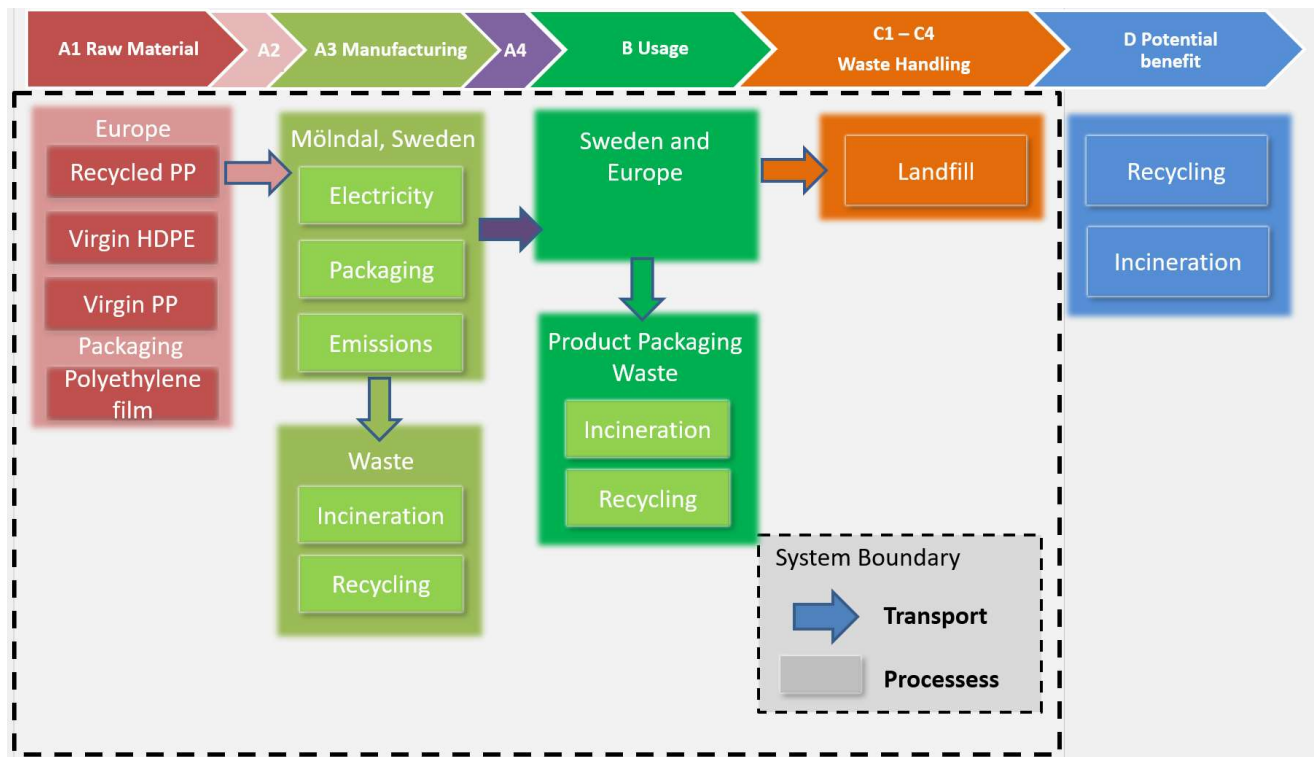
| LCA Information | |
|--|---|
| Functional unit: | 1kg of finished product |
| Description of system boundaries: | Cradle-to-Grave |
| Time representativeness generic data: | 2019-2021 |
| Data collection period specific data | 2021 |
| Database and LCA software used: | ecoinvent 3.8 geographical scope Europe, SimaPro 9.3 |
| Electricity data: | GoO certified electricity is used for representing electricity in manufacturing. Consumption mixes in respective country 2021 for other LCA modules. |
| Allocation: | Polluter Pays / Allocation by Classification |
| Impact Assessment methods: | <p>Potential environmental impacts are calculated with Environmental Footprint (EF) 3.0 method as implemented in SimaPro 9.3.</p> <p>EN 15804 has aligned their impact assessment methodology with the Environmental footprint 3.0 method, except for their approach on biogenic carbon.</p> <p>Resource use values are calculated from Cumulative Energy Demand v1.11.</p> |
| Based on LCA Report: | Miljögiraff report 1111 LCA Eurospacers |



Modules declared, geographical scope, share of specific data (in GWP-GHG indicator) and data variation:

| | Product stage | | | Construction process stage | | Use stage | | | | | | | End of life stage | | | | Resource recovery stage | |
|--------------------|---------------------|-----------|---------------|----------------------------|---------------------------|-----------|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------------------|-----------|------------------|----------|------------------------------------|---|
| | Raw material supply | Transport | Manufacturing | Transport | Construction installation | Use | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | De-construction demolition | Transport | Waste processing | Disposal | Reuse-Recovery-Recycling-potential | |
| Module | A1 | A2 | A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D | |
| Modules declared | X | X | X | X | X | ND | ND | ND | ND | ND | ND | ND | X | X | X | X | X | |
| Geography | EU | EU | SWE | EU | EU | | | | | | | | EU | EU | EU | EU | EU | |
| Specific data used | <90% | | | | | - | - | - | - | - | - | - | - | - | - | - | - | - |

System diagram:



Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|---------------------|------------|----------------------------------|------------------------------|
| Recycled PP | 0,8824 | 100 | 0 |
| Virgin PP | 0,0011 | 0 | 0 |
| Virgin HDPE | 0,1165 | 0 | 0 |
| TOTAL | 1,00 | 88 | 0 |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Cardboard | 0,035 | 0,035 | |
| Plastic strap PP | 0,00068 | 0,0007 | |
| TOTAL | 0,036 | 0,036 | |

The product documented within this EPD contains no substances in the REACH Candidate list.

Manufacturing:

Post-consumer plastic is collected by truck from different sources. The collected plastic is grinded to smaller pieces by a grinder machine. The plastic is then washed, filtered and melted before extruded to new PP granulate.

The PP granulates is transported to Sweden with train, boat and truck to Pari Plast AB in Mölndal, Sweden. At Pari Plast the granulates are melted and moulded to different products, shapes and sizes in injection moulding machines using certified renewable electricity.

The finished products are strapped in bundles with plastic ribbons and placed directly on pallets, alternatively placed in cardboard boxes then in turn placed on pallets, for transport directly to customers by truck.



Environmental Information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1kg of plastic product Cradle-to-Grave | | | | | | | | | | | | |
|--|---|----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 6.88E-01 | 1.06E-01 | 1.65E-01 | 9.59E-01 | 4.99E-02 | 2.02E-03 | 6.93E-04 | 8.31E-03 | 2.94E-03 | 2.63E-03 | -1.72E-01 |
| GWP-biogenic | kg CO ₂ eq. | 8.22E-02 | 6.02E-04 | -1.04E-02 | 7.24E-02 | 4.25E-05 | 3.46E-07 | 2.16E-07 | 7.08E-06 | 4.49E-06 | 2.61E-06 | 1.40E-02 |
| GWP-luluc | kg CO ₂ eq. | 2.03E-04 | 1.08E-04 | 2.94E-04 | 6.06E-04 | 1.96E-05 | 1.20E-07 | 6.12E-08 | 3.26E-06 | 6.52E-06 | 2.49E-06 | -2.27E-04 |
| GWP-total | kg CO ₂ eq. | 7.71E-01 | 1.07E-01 | 1.55E-01 | 1.03E+00 | 4.99E-02 | 2.02E-03 | 6.93E-04 | 8.32E-03 | 2.96E-03 | 2.64E-03 | -1.59E-01 |
| ODP | kg CFC 11 eq. | 6.64E-08 | 1.90E-08 | 1.08E-08 | 9.62E-08 | 1.15E-08 | 6.99E-11 | 5.51E-11 | 1.92E-09 | 6.26E-10 | 1.07E-09 | -1.16E-08 |
| AP | mol H ⁺ eq. | 2.86E-03 | 5.79E-04 | 1.54E-03 | 4.98E-03 | 2.02E-04 | 1.42E-06 | 6.71E-06 | 3.37E-05 | 2.70E-05 | 2.48E-05 | -7.30E-04 |
| EP-freshwater | kg PO ₄ ³⁻ eq. | 9.91E+00 | 3.45E+00 | 1.25E+01 | 2.58E+01 | 1.59E+00 | 9.55E-03 | 1.29E-03 | 2.65E-01 | 7.10E-02 | 4.74E-01 | 1.47E+01 |
| EP-freshwater | kg P eq. | 1.35E-04 | 2.70E-05 | 1.89E-04 | 3.51E-04 | 3.21E-06 | 2.09E-08 | 2.20E-08 | 5.35E-07 | 1.75E-07 | 2.41E-07 | -5.74E-05 |
| EP-marine | kg N eq. | 5.00E-04 | 1.56E-04 | 2.65E-04 | 9.20E-04 | 6.10E-05 | 4.71E-07 | 3.03E-06 | 1.02E-05 | 1.15E-05 | 8.61E-06 | -1.94E-04 |
| EP-terrestrial | mol N eq. | 5.42E-03 | 1.67E-03 | 2.48E-03 | 9.57E-03 | 6.66E-04 | 5.12E-06 | 3.32E-05 | 1.11E-04 | 1.25E-04 | 9.42E-05 | -1.82E-03 |
| POCP | kg NMVOC eq. | 1.90E-03 | 4.90E-04 | 6.62E-04 | 3.05E-03 | 2.04E-04 | 1.52E-06 | 9.33E-06 | 3.40E-05 | 3.47E-05 | 2.74E-05 | -4.72E-04 |
| ADP-minerals&metals* | kg Sb eq. | 5.86E-06 | 4.50E-07 | 6.05E-06 | 1.24E-05 | 1.73E-07 | 1.07E-09 | 2.07E-10 | 2.89E-08 | 9.92E-09 | 6.01E-09 | -4.14E-06 |
| ADP-fossil* | MJ | 1.48E+01 | 1.65E+00 | 1.67E+00 | 1.81E+01 | 7.54E-01 | 4.57E-03 | 9.54E-03 | 1.26E-01 | 5.20E-02 | 7.35E-02 | 5.08E+00 |
| WDP | m ³ | 4.42E-01 | 1.07E-02 | 1.65E+01 | 1.69E+01 | 2.26E-03 | 1.64E-05 | 8.55E-03 | 3.76E-04 | 2.34E-04 | 3.31E-03 | 2.59E+00 |
| Acronyms | GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption | | | | | | | | | | | |

* 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. The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1kg of plastic product Cradle-to-Grave | | | | | | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ¹ | kg CO ₂ eq. | 6.75E-01 | 1.05E-01 | 1.64E-01 | 9.45E-01 | 4.95E-02 | 2.02E-03 | 6.83E-04 | 8.24E-03 | 2.92E-03 | 2.59E-03 | -1.71E-01 |

Use of resources

| Results per 1kg of plastic product Cradle-to-Grave | | | | | | | | | | | | |
|--|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 1.90E+00 | 9.30E-02 | 5.59E+00 | 7.58E+00 | 1.06E-02 | 6.79E-05 | 0.00E+00 | 1.77E-03 | 5.38E-03 | 6.27E-04 | -7.95E-01 |
| PERM | MJ | 0.00E+00 | 0.00E+00 | 4.73E-01 | 4.73E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| PERT | MJ | 1.90E+00 | 9.30E-02 | 6.06E+00 | 8.05E+00 | 1.06E-02 | 6.79E-05 | 0.00E+00 | 1.77E-03 | 5.38E-03 | 6.27E-04 | -7.95E-01 |
| PENRE | MJ | 2.80E+00 | 1.74E+00 | 1.50E+00 | 6.05E+00 | 8.00E-01 | 4.85E-03 | 1.02E-02 | 1.33E-01 | 5.45E-02 | 7.81E-02 | -5.25E+00 |
| PENRM | MJ. | 5.17E+00 | 0.00E+00 | 2.86E-01 | 5.45E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| PENRT | MJ | 7.97E+00 | 1.74E+00 | 1.79E+00 | 1.15E+01 | 8.00E-01 | 4.85E-03 | 1.02E-02 | 1.33E-01 | 5.45E-02 | 7.81E-02 | -5.25E+00 |
| SM | kg | 8.91E-01 | 0.00E+00 | 0.00E+00 | 8.91E-01 | 9.17E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| RSF | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| NRSF | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| FW | m ³ | 2.02E-03 | 4.30E-04 | 1.96E-03 | 4.41E-03 | 1.26E-04 | 1.50E-06 | 5.20E-07 | 2.10E-05 | 7.87E-06 | 8.05E-05 | -4.19E-03 |
| Acronyms | PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water | | | | | | | | | | | |

¹ The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Waste production and output flows

Waste production

| Results per 1kg of plastic product Cradle-to-Grave | | | | | | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Non-hazardous waste disposed | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Radioactive waste disposed | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

Output flows

| Results per 1kg of plastic product Cradle-to-Grave | | | | | | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Material for recycling | kg | 0.00E+00 | 0.00E+00 | 3.50E-02 | 3.50E-02 | 0.00E+00 | 3.50E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Materials for energy recovery | kg | 0.00E+00 | 0.00E+00 | 1.07E-02 | 1.07E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Exported energy, electricity | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Exported energy, thermal | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

Information on biogenic carbon content

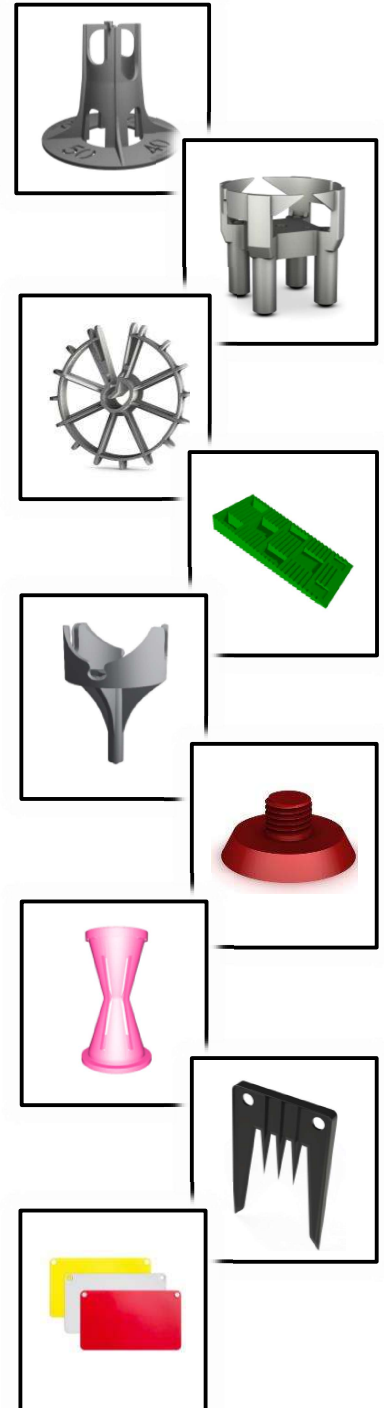
| Results per 1kg of plastic product Cradle-to-Grave | | |
|--|------|----------|
| BIOGENIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 0 |
| Biogenic carbon content in packaging | kg C | 2.56E-01 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

Additional information

The plastic products are offered in several different shapes and forms but the environmental aspects and materials for producing the product is the same. The FU of 1kg give a correct result for the following products from Eurospacers no matter the size.

| Product type | Product name |
|----------------------------|---|
| Foundation spacers | Grade plate spacer Grund |
| | High speed spacer Speedies® Foundation. |
| Wall and ceiling spacers | Allround |
| | Original |
| | Praxi |
| | Universal |
| | Disa |
| | Cross |
| | High speed spacer Speedies® Ceiling |
| Wheel spacers | Twistable wheel Turn |
| | Single wheel |
| | Multi-wheel Multi-E |
| | Pile wheel Double |
| End cap spacers | End cap spacer |
| Shims | Shim S |
| | Shim B |
| | Shim L |
| | Shim Q |
| | Shim XL |
| | Shim soft |
| Wedges | Plastic wedge Stadig |
| Insulation fixing products | Plastic Nail |
| | Insulation pin Ingo |
| | Enlargering ring Ringo |
| | Plastic fixing wedge |
| | Speedies® insulation screw |
| | Nail washer |
| Insulation spacers | Insulation spacer |
| Floor heating accessories | Pipe fixing pin |
| Badges | Marker plate Mini |
| | Marker plate Midi |
| | Marker plate Maxi |
| | Label plate with pins |
| Level markers | Level marker Bella |
| Nailing plates | Adhesive plate |
| | Nailing plate Speedies® |
| Rebar protection | Protection cap Flexcap™ |
| Sleeves | Stud sleeve |



References

CEN European Committee for Standardisation (2021). EN15804:2012+A2:2019/AC:2021 (CEN 2021), Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.

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ISO. (2006). ISO 14040:2006, Environmental management — Life cycle assessment — Principles and framework. 1–28.

Lindman, Pär, Miljögraff report 1111, Life Cycle Assessment of Plastic Products from EuroSpacers, 2022

