

# Environmental Product Declaration



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

## Plastic reinforcement spacers and nearby products for construction purposes

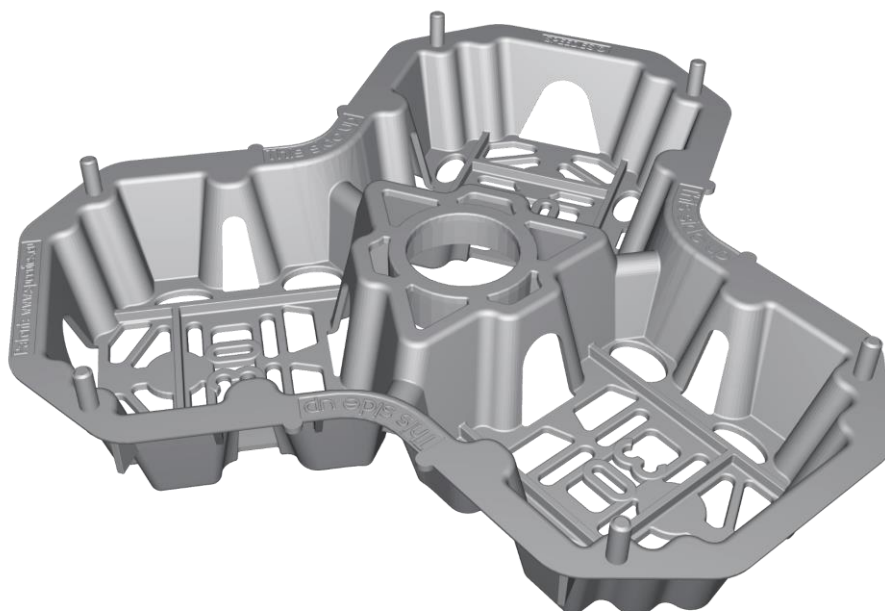
from

**Eurospacers AB**



Programme:	The International EPD® System, <a href="http://www.environdec.com">www.environdec.com</a>
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](http://www.environdec.com)*



## General information

### Programme information

<b>Programme:</b>	The International EPD® System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
<b>E-mail:</b>	<a href="mailto:info@environdec.com">info@environdec.com</a>

<b>Accountabilities for PCR, LCA and independent, third-party verification</b>
<b>Product Category Rules (PCR)</b>
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
<b>Life Cycle Assessment (LCA)</b>
LCA accountability: Pär Lindman, Miljögiraff AB
<b>Third-party verification</b>
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.

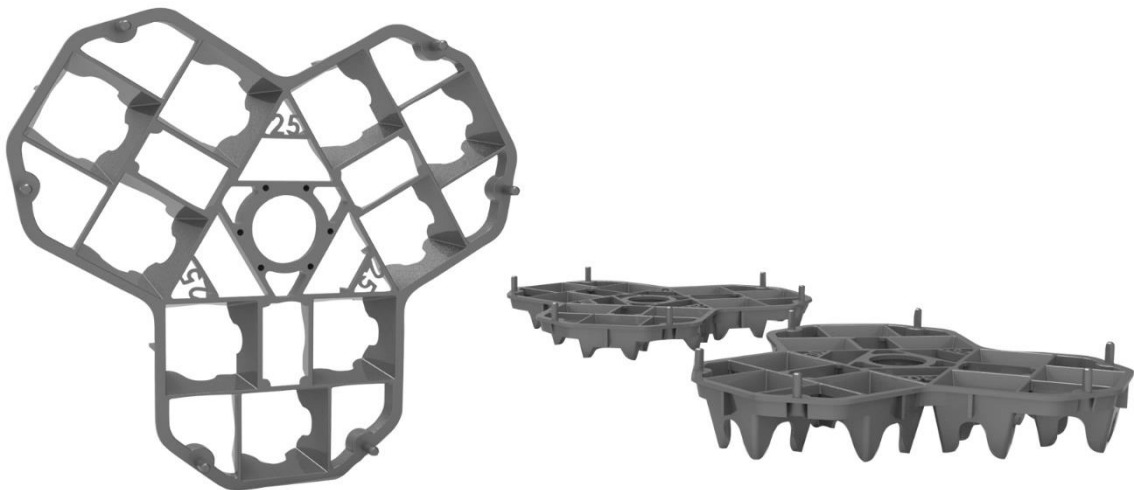
All products from Eurospacers that this EPD covers can be seen listed with names under Additional Information.

UN CPC code: 54530

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



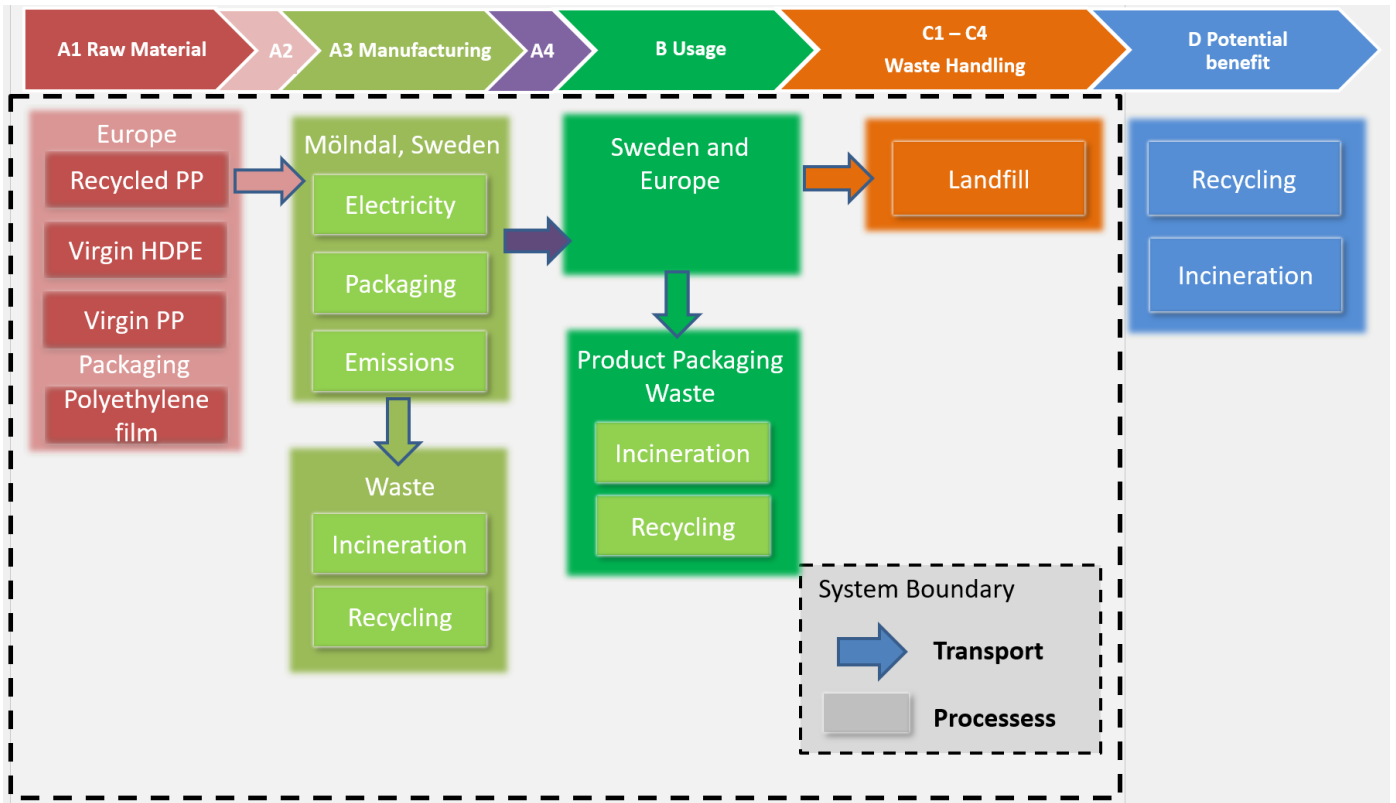
<b>LCA Information</b>	
<b>Functional unit:</b>	1kg of finished product
<b>Description of system boundaries:</b>	Cradle-to-Grave
<b>Time representativeness generic data:</b>	2019-2021
<b>Data collection period specific data</b>	2021
<b>Database and LCA software used:</b>	ecoinvent 3.8 geographical scope Europe, SimaPro 9.3
<b>Electricity data:</b>	GoO certified electricity is used for representing electricity in manufacturing. Consumption mixes in respective country 2021 for other LCA modules.
<b>Allocation:</b>	Polluter Pays / Allocation by Classification
<b>Impact Assessment methods:</b>	<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>
<b>Based on LCA Report:</b>	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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sup>+</sup> 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 <sub>4</sub> <sup>3-</sup> 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 <sup>3</sup>	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 <sup>1</sup>	kg CO <sub>2</sub> 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 <sup>3</sup>	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											

<sup>1</sup> 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+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0
Non-hazardous waste disposed	kg	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0
Radioactive waste disposed	kg	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0

### 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+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0
Material for recycling	kg	0.00E+0 0	0.00E+0 0	3.50E-02	3.50E-02	0.00E+0 0	3.50E-02	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0
Materials for energy recovery	kg	0.00E+0 0	0.00E+0 0	1.07E-02	1.07E-02	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0
Exported energy, electricity	MJ	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0
Exported energy, thermal	MJ	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0	0.00E+0 0

## Information on biogenic carbon content

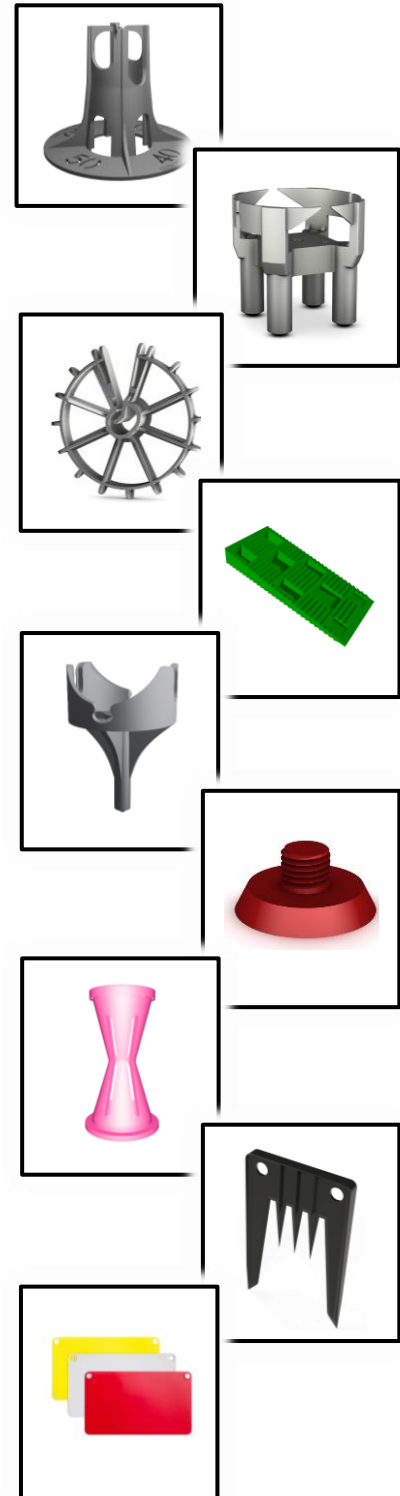
Results per 1kg of plastic product Cradle-to-Grave		
BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	2.56E-01

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

## 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.

<b>Product type</b>	<b>Product name</b>
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.

EPD International. (2021a). CONSTRUCTION PRODUCTS PCR 2019:14 VERSION 1.11.

EPD International. (2021b). General Programme Instructions for the International EPD® System. Version 4.0.

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

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

