

Environmental Product Declaration



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

Mixed material spacers from plastic and steel

(EPD of multiple products, based on the worst case results of the product group)
from

Exte GmbH



Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
Type of EPD:	EPD of multiple products from a company
EPD registration number:	EPD-IES-0025246:001
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An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see 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:	support@environdec.com

Product Category Rules (PCR)
CEN standard EN 15804 serves as the core PCR
PCR: PCR 2019:14: CONSTRUCTION PRODUCTS, version 2.0.1
PCR review was conducted by: <i>The Technical Committee of the International EPD System. See www.environdec.com for a list of members. Review chair Rob Rouwette and review co-chair Noa Meron. The review panel may be contacted via the Secretariat www.environdec.com/contact.</i>
c-PCR: Not applicable

Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:
☒ Individual EPD verification without a pre-verified LCA/EPD tool Third-party verifier: Luciano Sambataro, Cacta Sustainability Solutions LLC Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: ☐ Yes ☒ No

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

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

INFORMATION ABOUT EPD OWNER

Owner of the EPD: Exte GmbH

Address: Industriestraße 3, 06429 Nienburg (Saale), Germany

Contact: Dr. Anja Hamblyn, a.hamblyn@exte.de

Address and contact information of the LCA practitioner commissioned by the EPD owner:

Sphera Solutions GmbH, 70771 Leinfelden-Echterdingen, Germany, www.sphera.com

Description of the organisation:

EXTE Group

The EXTE Group is a global supplier of specialised products for the concrete, roller shutter box and window construction industries. Our independent, medium-sized family business combines tradition with innovation. Since our foundation in 1959, we evolved constantly and became a key player in the construction industry.

To live up to our guiding principles, we have been using an energy management system at our sites for over a decade, which is certified according to ISO 50 001.

EXTE GmbH in Nienburg (Saale), Germany

At our site in Nienburg (Saale), Germany, the EXTE GmbH employs 200 people in development, manufacture, warehousing, sales, and distribution. On a production area of around 22,000 m² formwork accessories and spacers for concrete construction are made from steel and plastics – a complete product range tailored to the needs of our customers.

Product-related or management system-related certifications: ISO 50 001

PRODUCT INFORMATION

Product name:

Mixed-material spacers for reinforced concrete construction

Product identification:

Mixed-material spacers for maintaining defined positioning of reinforcement mesh, concrete cover or wall thickness in reinforced concrete construction, made from plastic and steel

Product description:

Normally a spacer is a component which is placed to maintain the concrete covering between the outer steel reinforcement and formwork or blinding in reinforced concrete construction. This EPD encompasses special spacer types which fulfil additional or alternative functions as outlined below:

- **Rod spacers** – characterised by a metal rod to which plastic wheel spacers are attached; used at precast concrete facilities for maintaining concrete covering between reinforcement mesh and nearest formwork face
- **Hollow wall spacers** – characterised by a metal rod fully covered by plastic or partially covered by plastic caps; used at precast concrete facilities for maintaining a defined wall thickness between the outer faces of the two concrete slabs forming the hollow wall
- **Mesh connector spacers** – characterised by a metal rod to which elongated plastic clip-on spacers are attached at either end; used to connect two reinforcement meshes at a defined distance while at the same time realising concrete covering between reinforcement mesh and formwork
- **Individual high chairs** – characterised by two or three U-shaped rods welded together to which plastic feet are attached at either end; may contain an additional horizontal bar for attachment of heating/cooling pipes for concrete core activation; used to support the horizontal top layer of reinforcement mesh

The production of mixed-material spacers from steel and plastic for reinforced concrete construction requires a combination of several process steps. Which process steps apply to which product is indicated in the table at the end of this section.

Process steps:

- **Wire drawing**
Steel wire (is fed through a series of drawing dies or rolling stands to reduce its diameter. The processed wire is spooled into coils and stored until needed.
- **Wire cutting**
 - Inline
 - Wires are drawn from coils, fed through straightening units and cut to desired length by a shearing unit. Pre-cut wires are collected in the buffer storage of the machine from where they are fed into the following production unit.
 - Offline
 - Wires are drawn from coils, fed through straightening units and cut to desired length by a shearing unit. Pre-cut wires are stored in boxes until needed.
- **Injection moulding**
 - Inline
 - Pre-cut wire is placed in an injection mould. Melted plastic is forced into the cavities surrounding the wire. Upon cooling, the plastic is permanently attached to the wire.
 - Offline
 - Melted plastic is forced into the cavities of a mould. After a defined cooling time, the solid plastic components are released from the mould and stored in boxes until needed.

- **Bending and Welding**

Pre-cut wire is fed into a bending unit and pushed into a U-shape. Two or three U-shapes are positioned together in a spider-like structure on the welding machine. Resistance welding uses electrodes to apply heat and pressure at the wire intersections to fuse them together.

- **Pressing**

Pre-cut wire is fed into a pressing unit where plastic articles are either clipped onto the diameter of the wire or pushed onto the ends of the wire.

- **Quality Control and Packaging**

Visual inspections, dimensional checks, and mechanical testing are performed to ensure quality standards are met.

The articles are packaged either loosely in sacks or bags, or in bundles held by plastic strapping, before being placed onto pallets and prepared for distribution.

	Wire drawing	Cutting - inline	Cutting - offline	Injection moulding - inline	Injection moulding - offline	Bending and Welding	Pressing	Quality Control and Packaging
Rod spacers (one-piece)	X	X		X				X
Rod spacers (with attached wheel spacers)	X	X			X		X	X
Hollow wall spacers (one-piece)	X		X	X				X
Hollow wall spacers (with attached foot and head)	X		X		X		X	X
Mesh connector spacers	X		X		X		X	X
Individual high chairs	X		X		X	X	X	X

Visual representation (e.g., an image) of the product:

A visual representation of the products is provided in the "List of products" section.

UN CPC code: 4219 Other fabricated metal products

Name and location of production site(s): Industriestraße 3, 06429 Nienburg (Saale), Germany

CONTENT DECLARATION

Content declaration is done for mixed material spacers and related products from plastic and steel

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg Carbon / product or declared unit
ABS granulate	0.5	99%	0%	0
Steel wire	0.5	82%	0%	0
TOTAL	1	90.5%	0%	0

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg Carbon / product or declared unit
Pallets	2.89E-03	0.280%	0.001
LDPE film/sheet/bags	6.61E-04	0.065%	--
Sticky label	1.19E-05	0.001%	--
TOTAL	3.57E-03	0.355%	0.001

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO₂.

No substance contained within the product requires declaration according to the Candidate List of SVHC for Authorisation subject to Article 59(10) of the Regulation (EC) No. 1907/2006 ("REACH").

LCA INFORMATION

Declared unit: 1 kg of mixed-material spacers made from plastic and steel

Reference service life: Not applicable

Time representativeness: 2024

Geographical scope: A1-A2: EU, A3: Germany; A4-A5 and C1-D: EU.

Database(s) and LCA software used: The background data has been taken from the Sphera MLC database CUP 2025.1. The LCA model was created using Sphera's LCA for Experts (LCA FE) software, version 10.9.

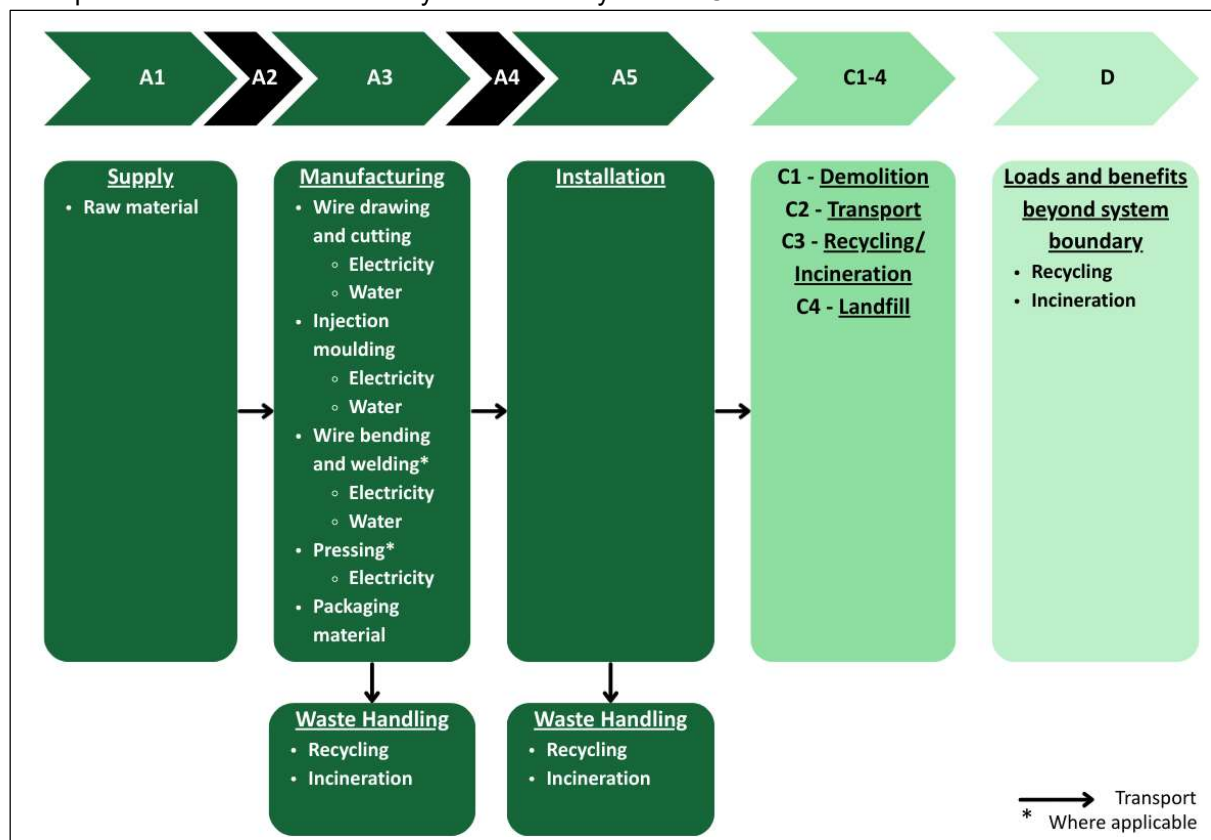
EPD/LCA Tool used: Not applicable

Description of system boundaries:

Cradle to gate with options, modules C1–C4, module D and with optional modules (A1–A3 + C + D and additional modules A4 and A5).

Process flow diagram:

Process flow diagram of the product system, divided into the life-cycle stages and modules showing the main processes included and the system boundary of the LCA.



More information:

More information on the product can be found under <https://www.exte.de/schalungszubehoer/>

Information on electricity used in the manufacturing process:

Exte produces solar photovoltaic power on-site, which in the year 2024 substituted 3.37% of the total manufacturing electricity demand. In accordance with the PCR, the German residual grid mix is used for the LCA calculations to account for the rest of the 96.63%. The emission factor (with regards to the GWP-GHG indicator) accounts for: 0.85 kg CO₂ eq./kWh.

Information on secondary material input:

The spacers produced by Exte consist of at least 90.5% secondary material, i.e. 99% secondary plastic and 82% secondary steel. The scrap enters the system boundary burden-free. The recycled material inputs for plastic, which encompass the mechanical recycling of post-consumer plastic waste via grinding, metal separation, washing, palletisation etc., contribute to more than 10% to the GWP-GHG results of modules A1-A3. The GWP-GHG intensity of the recycled material ranges from 120 kg CO₂ eq./tonne to 600 kg CO₂ eq./tonne. Recycled steel inputs, which encompass the steel recycling process via electric arc furnace process, contribute to more than 10% to the GWP-GHG results of modules A1-A3. The GWP-GHG intensity of the resulting recycled material ranges from 140 kg CO₂ eq./tonne to 740 kg CO₂ eq./tonne.

Information about declared modules and scenarios:

General:

This EPD covers a whole range of different products, and a worst-case representative of these products is declared. The declared product composition represents the specific composition of all spacers produced at the production site over one year.

Module A1 to A3:

The product stage includes provision of all raw materials, transportation of raw materials to manufacturing site and the production process, as well as waste processing up to the end-of-waste state or disposal of final residues during the product stage.

Exte purchases secondary plastic granulates and steel wire with 82% secondary steel to manufacture the spacers declared in this EPD. Secondary plastic is purchased in different compositions, i.e. either 99% or 100% secondary granulate (Module A1). The worst-case composition purchased by Exte is declared in this EPD, i.e. ABS granulates with 99% recycled content. Similarly, steel wire is purchased with recycled content ranging from 82% to 97%. A worst-case composition of steel wire with 82% recycled content is declared in the EPD. Raw materials are delivered to the production site by EURO mix truck (Module A2). The secondary plastic granulates are further processed by injection moulding, while the steel wire is processed through wire drawing, cutting, bending, welding and pressing. (Module A3). The impact of packaging materials and their transportation is included.

Module A4:

This module considers 100 km truck transport to site (diesel driven, EURO mix, 40 tons total load, 64% utilisation). The transport distance can be modified project-specific if required by linear scaling.

Module A5:

Manual installation is considered in this module. Treatment and disposal of packaging material are included in this module as well i.e. recycling of steel packaging and incineration of plastic and wood packaging.

Module C1 to C4:

- Demolition (C1): Demolition of the spacers is done along with the concrete elements they are installed in; for spacers only, the environmental loads are assumed as insignificant and declared as 0.
- Transport (C2): 50 km EURO mix truck (EU Scenario).
- Waste processing (C3): Not relevant, as the spacers are landfilled.
- Disposal (C4): Spacers are disposed of in landfill.

Module D:

- Benefits and loads from module A5

Excluded data and flows from the LCA calculation:

Infrastructure and capital goods are not considered within this EPD.

Allocation principles for secondary material:

Plastics are assumed to reach the end-of-waste status before the recycling process; the recycling process is included in A1-A3.

Data Quality Assessment

Technological: All primary and secondary data are modelled to be specific to the technologies or technology mixes under study. Where technology-specific data are unavailable, proxy data are used. The overall technological representativeness is considered to be good.

Geographical: All primary and secondary data are collected specific to the countries / regions under study. Where country / region specific data are unavailable, proxy data are used. The overall geographical representativeness is considered to be good.

Temporal: All primary data are collected for the year 2024. All secondary data come from the Managed LCA Content (MLC) 2025.1 database and are representative of the years 2021 - 2024. As the study intended to compare the product systems for the reference year 2024, temporal representativeness is good.

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

Process	Source type	Source	Reference	Data category	Share of primary data, of GWP-GHG results for A1-A3
Manufacturing of product	Collected data	MLC 2025.1	< 5 years	Secondary data	0%
Raw material supply	Databases	MLC 2025.1	< 5 years	Secondary data	0%
Generation of electricity used in manufacturing of product	Databases and collected data	MLC 2025.1	< 5 years	Primary data	69%
Transport of raw materials	Databases and collected data	MLC 2025.1	< 5 years	Primary data	1%
Other processes	Databases	MLC 2025.1	< 5 years	Secondary data	0%
Total share of primary data, of GWP-GHG results for A1-A3					70%

Content Information

Module A4: Transport to the building site

This module considers 100 km truck transport to site (diesel driven, EURO mix, 40 tons total load, 64% utilisation). The transport distance can be modified project-specific if required by linear scaling.

The following table displays technical information used in module A4 (transportation by truck to the building site)

Parameter	Unit	Amount
Diesel consumption	l/100 km (per kg of transported good)	0.0029
Distance	km	100
Capacity utilisation (including empty returns)	%	64
Gross weight of transported product	kg	1
Volume capacity utilisation factor	-	1

Module A5: Installation in the building

The following table displays technical information regarding the installation in the building (treatment of packaging waste).

Parameter	Unit	Amount
Wooden pallets sent to incineration	kg/ declared unit	2.89E-03
Plastic packaging waste sent to incineration	kg/ declared unit	6.73E-04

Note: Installation offcuts or installation efforts and related auxiliary materials are not considered in this study and therefore not listed.

Module C: End-of-life

The following table displays the waste flows at the products' end of life (for the worst-case product). The transportation distance for C2 is considered to be 50 km.

The amounts listed represent gross quantities including secondary material.

Parameter	Unit	Amount
Waste collected as mixed construction waste	kg	1
EoL Scenario (Landfill)		
Waste materials for final deposition	kg	1

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

	Product stage			Distribution/ installation stage		Use stage							End-of-life stage				Beyond product life cycle
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy 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	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X
Geography	EU	EU	DE	EU	EU								EU	EU	EU	EU	EU
Share of primary data	70%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	-77%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

ENVIRONMENTAL PERFORMANCE

LCA results of the product(s) - main environmental performance results

The calculation of the resource use indicators follows option B from Annex 3 in PCR 2019:14 - Construction Products v.3.4 for packaging. Thus, there is an input in A3 for PERM and PENRM values and output in A5. Calorific value for steel is declared as zero. Calorific value of secondary materials is declared. Biogenic carbon leaving the product system in module A5 has been balanced out in modules A1-A3.

Mandatory impact category indicators according to EN 15804

Results per 1 kg of mixed-material spacers made of plastic and steel									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	4.01 E+00	7.63 E-03	6.43 E-03	0	3.80 E-03	0	1.48 E-02	-2.26 E-03
GWP-fossil	kg CO ₂ eq.	4.01 E+00	7.53 E-03	2.18 E-03	0	3.75 E-03	0	1.48 E-02	-2.25 E-03
GWP-biogenic	kg CO ₂ eq.	-6.84 E-04	1.41 E-05	4.25 E-03	0	7.02 E-06	0	1.57 E-06	-1.16 E-05
GWP-luluc	kg CO ₂ eq.	1.66 E-03	7.92 E-05	1.21 E-07	0	3.95 E-05	0	6.07 E-05	-3.09 E-06
ODP	kg CFC 11 eq.	2.57 E-11	1.28 E-15	6.19 E-16	0	6.36 E-16	0	4.12 E-14	-2.11 E-14
AP	mol H ⁺ eq.	5.41 E-03	1.12 E-05	9.38 E-07	0	5.59 E-06	0	1.05 E-04	-2.65 E-06
EP-freshwater	kg P eq.	2.37 E-06	2.07 E-08	9.43 E-11	0	1.03 E-08	0	2.20 E-08	-2.05 E-09
EP-marine	kg N eq.	1.69 E-03	4.45 E-06	2.57 E-07	0	2.22 E-06	0	2.74 E-05	-7.66 E-07
EP-terrestrial	mol N eq.	1.85 E-02	4.62 E-05	4.04 E-06	0	2.30 E-05	0	2.98 E-04	-8.56 E-06
POCP	kg NMVOC eq.	4.89 E-03	9.94 E-06	7.17 E-07	0	4.95 E-06	0	8.19 E-05	-2.08 E-06
ADP-minerals&metals*	kg Sb eq.	3.82 E-07	5.12 E-10	7.07 E-12	0	2.55 E-10	0	9.16 E-10	-2.22 E-10
ADP-fossil*	MJ	4.46 E+01	9.86 E-02	1.32 E-03	0	4.91 E-02	0	1.94 E-01	-3.97 E-02
WDP*	m ³	1.06 E-01	3.52 E-05	6.70 E-04	0	1.75 E-05	0	1.60 E-03	-2.33 E-04
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 on 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 endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).

Additional mandatory and voluntary impact category indicators

Results per 1 kg of mixed-material spacers made of plastic and steel									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	4.07 E+00	7.71 E-03	2.19 E-03	0	3.84 E-03	0	1.50 E-02	-2.30 E-03

Resource use indicators

Results per 1 kg of mixed-material spacers made of plastic and steel									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	5.95 E+00	7.43 E-03	4.31 E-02	0	3.70 E-03	0	3.75 E-02	-1.29 E-02
PERM	MJ	4.27 E-02	0	-4.27 E-02	0	0	0	0	0
PERT	MJ	6.00 E+00	7.43 E-03	3.55 E-04	0	3.70 E-03	0	3.75 E-02	-1.29 E-02
PENRE	MJ	2.98 E+01	9.86 E-02	3.23 E-02	0	4.91 E-02	0	1.94 E-01	-3.97 E-02
PENRM	MJ	1.48 E+01	0	-3.10 E-02	0	0	0	0	0
PENRT	MJ	4.46 E+01	9.86 E-02	1.32 E-03	0	4.91 E-02	0	1.94 E-01	-3.97 E-02
SM	kg	9.78 E-01	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0
FW	m ³	8.45 E-03	3.67 E-06	1.57 E-05	0	1.83 E-06	0	4.69 E-05	-1.01 E-05
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 This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the characterisation factor for biogenic CO₂ is set to zero.

Waste indicators

Results per 1 kg of mixed-material spacers made of plastic and steel									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	7.77 E-08	3.96 E-12	7.04 E-13	0	1.97 E-12	0	4.25 E-11	-2.50 E-11
Non-hazardous waste disposed	kg	8.39 E-02	1.38 E-05	9.35 E-05	0	6.86 E-06	0	9.69 E-01	-1.97 E-05
Radioactive waste disposed	kg	1.15 E-03	1.86 E-07	7.20 E-08	0	9.27 E-08	0	2.06 E-06	-2.98 E-06

Output flow indicators

Results per 1 kg of mixed-material spacers made of plastic and steel									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0	0	0	0	0	0	0	0
Material for recycling	kg	3.52 E-02	0	0	0	0	0	0	0
Materials for energy recovery	kg	0	0	0	0	0	0	0	0
Exported energy. electricity	MJ	0	0	1.05 E-02	0	0	0	0	0
Exported energy. thermal	MJ	0	0	1.89 E-02	0	0	0	0	0

ADDITIONAL ENVIRONMENTAL INFORMATION

Mass-based conversion factor for converting the declared results to results for specific products within the product group shall be used. The products represented by this EPD are provided in the "List of products". The mass of the products is provided upon request.

ABBREVIATIONS

Abbreviation	Definition
ABS	Acrylonitrile butadiene styrene
CEN	European Committee for Standardisation
CO ₂ eq.	Carbon Dioxide Equivalent
CO ₂	Carbon Dioxide
c-PCR	Complementary Product Category Rule
DBV	Deutscher Beton- und Bautechnik-Verein e.V (German Concrete and Construction Engineering Association)
EC	European Commission
ECHA	European Chemicals Agency
EN	Europäische Norm (European Standard)
EoL	End of Life
EPD	Environmental Product Declaration
EU	European Union
GPI	General Programme Instructions
GWP-GHG	Global Warming Potential of Greenhouse Gases
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
LDPE	Low-density Polyethylene
MND	Module Not Declared
PCR	Product Category Rules
REACH	Registration. Evaluation. Authorisation and Restriction of Chemicals
SVHC	Substances of Very High Concern
UN CPC	United Nations Central Product Classification

REFERENCES

- General Programme Instructions of International EPD System. Version 4.
- PCR 2019:14: CONSTRUCTION PRODUCTS. version 2.0.1. The International EPD System. www.environdec.com.
- EN 15804:2012+A2:2019. Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products.
- ISO14025. 2006. Environmental labels and declarations — Type III environmental declarations — Principles and procedures.
- Software and database: Sphera LCA for Experts. LCA FE. software-system and databases. Managed LCA content MLC (fka GaBi database). University of Stuttgart and Sphera Solutions GmbH. 2024. CUP Version: 2024.1. MLC data set documentation under <https://lcadatabase.sphera.com/> (Oct 2024)
- Candidate list of substances of very high concern (SVHC) for authorisation published by ECHA as defined in the REACH Regulation 1907/2006/EC (> 0.1 wt%)
- DBV-Merkblatt. Unterstützungen nach Eurocode 2 (available Deutscher Beton- und Bautechnik-Verein e.V.. Kurfürstenstraße 129.10785 Berlin)

VERSION HISTORY

Original Version of the EPD. 2025-10-27

List of products

Article number	Description
32xxyyy	DWA S - Spacer for prefabricated hollow walls (shoe-shaped foot) steel diameter xx: 08 = 8 mm. 10 = 10 mm wall thickness yyy (in mm)
329xyyy	DWA K - Spacer for prefabricated hollow walls (cross-shaped foot) steel diameter xx: 08 = 8 mm. 10 = 10 mm wall thickness yyy (in mm)
3291xyyy	DWAG K - One-piece spacer for prefabricated hollow walls (cross-shaped foot) steel diameter x: 1 = 8 mm. 2 = 10 mm wall thickness yyy (in mm)
3291xyyy	DWAG S - One-piece spacer for prefabricated hollow walls (shoe-shaped foot) steel diameter x: 3 = 8 mm. 4 = 10 mm wall thickness yyy (in mm)
3210yyyDK	DWA DK - Spacer for prefabricated hollow walls (double head) wall thickness yyy (in mm)
946xyy6	VB - Quadropod for support of top layer reinforcement (tested according to DBV code) foot type x: [] = small plastic feet. 6 = large plastic feet quadropod height yy (in cm)
946xyy6zz	VB QT - Quadropod for support of top layer reinforcement (with crossbar; tested according to DBV code) foot type x: 5 = small plastic feet. 7 = large plastic feet quadropod height yy (in cm); crossbar height zz (in cm)
947xyy6	SB - Hexapod for support of top layer reinforcement (tested according to DBV code) foot type x: [] = small plastic feet. 6 = large plastic feet hexapod height yy (in cm)
947xyy6zz	SB QT - Hexapod for support of top layer reinforcement (with crossbar; tested according to DBV code) foot type x: 5 = small plastic feet. 7 = large plastic feet hexapod height yy (in cm); crossbar height zz (in cm)
xxxyy	DUO - Spacer for reinforcement mats and formwork wall thickness xxx (in mm) concrete cover yy (in mm)
xx5yyyyz xx5yyyyzB	SAS - Rod spacer for use in precast industry (steel diameter of 5 mm) support height xx (in mm) rod length yyy (in cm) plastic spacer distance zz: 15 = 15 cm. 30 = 30 cm
xx6yyyyz xx6yyyyzB	SAS - Rod spacer for use in precast industry (steel diameter of 6 mm) xx = [support height (in mm) - 1] rod length yyy (in cm) plastic spacer distance zz: 15 = 15 cm. 30 = 30 cm
xx6yyy30A xx6yyy30BA	SAS A - Rod spacer for use in precast industry with attached Robotex support height xx (in mm) rod length yyy (in cm) plastic spacer distance (30 cm)



DWAG S



DWAG K



DWA K



DWA S



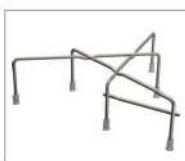
VB



VB QT



SB



SB QT



DUO



SAS



SAS A

