

# Product Verification

## Sustainability

Self declared according to LEED Building Design and Construction V4 (2015)

### ■ Product Systems

#### Fibre concrete spacers

#### Max Frank GmbH & Co. KG

Achieving the right amount of concrete cover is essential for the durability of reinforced concrete structures. Fibre concrete spacers ensure correct concrete cover before and during concreting. They are characterized by high compressive strength and excellent chemical and physical resistance. A test report according to DBV leaflet "Spacers – edition November 2019" is available from the German concrete association.

The spacers fulfil the requirements of all exposure classes. All recipes used are tested by independent testing institutes with regard to the required properties.



## Product Assessment

### Materials and Resources

Criteria	Product Verification
MR Credit Life-Cycle Impact Reduction - Option 4: Whole-Building Life-Cycle Assessment	EPD available: No
MR Credit BPDO - Environmental Product Declaration - Option 1: Environmental Product Declaration	0 % weighted value
MR Credit BPDO - Environmental Product Declaration - Option 2: Multi-Attribute Optimization	0 % weighted value
MR Credit BPDO - Sourcing of Raw Materials - Option 1: Raw Material Source and Extraction Reporting	0 % weighted value
MR Credit BPDO - Sourcing of Raw Materials - Option 2: Leadership Extraction Practices	N/A
MR Credit BPDO - Material Ingredients - Option 1: Material Ingredient Reporting	0 % weighted value
MR Credit BPDO - Material Ingredients - Option 2: Material Ingredient Optimization	0 % weighted value
MR Credit BPDO - Material Ingredients - Option 3: Product Manufacturer Supply Chain Optimization	0 % weighted value
Location Valuation Factor	No

### Indoor Environmental Quality

Criteria	Product Verification
EQ Credit Low-Emitting Materials (except Healthcare and Schools)	Yes

Legend: yes = Product contributes toward satisfying the credit, N/A = Product not relevant in the credit, no = Credit requirements are not proven

## Summary

### The product contributes to the certification:

- The product has an Environmental Product Declaration (EPD), which can be used to calculate the building life cycle assessment under LEED MR Building Life-Cycle Impact Reductions - Option 4: Whole-Building Life-Cycle Assessment: EPD available: No
- Weighted Product Value on Credit BPDO - Environmental Product Declaration - Option 1: Environmental Product Declaration: 0 % weighted value

- Weighted Product Value on Credit BPDO - Environmental Product Declaration - Option 2: Multi-Attribute Optimization: 0 % weighted value
- Weighted Product Value on Credit BPDO - Sourcing of Raw Materials - Option 1: Raw Material Source and Extraction Reporting: 0 % weighted value
- Weighted Product Value on Credit BPDO - Material Ingredients - Option 1: Material Ingredient Reporting: 0 % weighted value
- Weighted Product Value on Credit BPDO - Material Ingredients - Option 2: Material Ingredient Optimization: 0 % weighted value
- Weighted Product Value on Credit BPDO - Material Ingredients - Option 3: Supply Chain Optimization: 0 % weighted value
- Information for Location Valuation Factor is available: No
- The entire product contributes toward satisfying EQ Credit: Low-Emitting Materials: Yes

## ■ Product Properties

### Ingredients:

Recycled content post-consumer:	1.4 wt%
Recycled content pre-consumer:	0.6 wt%
VOC content according 2004/42/EG:	N/A
VOC content according 2004/42/EG:	N/A
Percentage of the product's composition, that is known to the chemical ingredient level	N/A
To what level of detail is the product composition known?	N/A
Reused content	0 wt%
Rapidly renewable content	100 wt%
Non renewable virgin raw material content	0 wt%
SVHC according REACH < 0,1 %:	Yes
Free (< 0,1 %) of biocidal:	Yes
Free (< 0,1 %) of chlorinated paraffins (= CP inkl. SCCP, MCCP, LCCP):	Yes
Free (< 0,1 %) of polybrominated diphenyl ethers (= PBDE):	Yes
Free (< 0,1 %) of polybrominated biphenyls (= PBB):	Yes
Free (< 0,1 %) of hexabromocyclododecane (= HBCD):	Yes
Free (< 0,1 %) of tris (2-carboxyethyl) phosphine (= TCEP):	Yes
Free (< 0,1 %) of lead:	Yes
Free (< 0,1 %) of cadmium:	Yes
Free (< 0,1 %) of chromium-VI compounds:	Yes
Free of solvent according to VdL-RL01:	Yes



Free (< 0,1 %) of aromatic compounds:	Yes
Free (< 0,1 %) from halogenated propellants:	Yes
Free (< 0,1 %) of tin:	Yes
Free (< 0,1 %) of halogenated flame retardants:	Yes
Content of VOC:	N/A
Content of solvents:	N/A
Free (< 0,1 %) of halogens:	Yes
Free of plasticizer according to VdL-RL01:	Yes
Free (< 0,1 %) of hydrocarbon (KWS) plasticizer:	Yes

**Manufacturer:**

Are reverse logistics in place for the product?	Yes
Environmental Management System according ISO 14001:	Yes
Final manufacturing location of the product: latitude	N/A
Final manufacturing location of the product: longitude	N/A

**Emissions:**

Formaldehyde emissions after 28 days according DIN EN 717-1:	N/A
R-Value according to AgBB:	N/A
TVOC after 3 days according ISO 16000-3 / AgBB:	N/A
TVOC after 28 days according ISO 16000-3 / AgBB:	N/A
SVOC after 3 days according ISO 16000-3 / AgBB:	N/A
SVOC after 28 days according ISO 16000-3 / AgBB:	N/A
Carcinogens 1A and 1B after 3 days according ISO-16000 / AgBB:	N/A
Carcinogens 1A and 1B after 28 days according ISO-16000 / AgBB:	N/A

**Life Cycle Assessment:**

Functional use period	50 a
-----------------------	------

**Circularity:**

Has the product been designed for reuse, refurbishment or remanufacturing?	No
Is the product designed for a recycling of equal quality?	No
Was the product designed for clean incineration?	No

- Product was designed with cycling in mind. No
- Was the Product designed for emission or direct dispersal? No
- Was the product specifically designed for clean and rapid disassembly? No

#### ■ Product Components

Name	Amount	Material type / Function	DfD	Total Weight	Specific Weight	Portion (%)
-	0.430	Sand	No	0.430	1 kg / kg	43.00 %
-	0.500	Cement	No	0.500	1 kg / kg	50.00 %
-	0.050	Fasern	No	0.050	1 kg / kg	5.00 %
-	0.020	Wasser	No	0.020	1 kg / m <sup>3</sup>	2.00 %

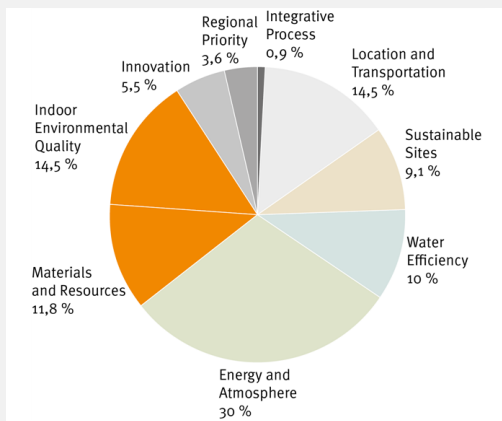
■ System description

This verification is the evaluation and ranking of products in terms of the certification system LEED version 4 (Building Design and Construction). The USGBC (U.S. Green Building Council) generally does not certify products. Therefore the project team or the manufacturer is responsible to declare compliance with respect to the LEED criteria. Notice: This verification is generated by the Assessment Service of BMS. The distribution or publication by third parties is not permitted. The data sheet is not a LEED certification document. The information is based on the manufacturer's specifications. Despite a diligent treatment of all information BMS can not make any warranties about the completeness, reliability and accuracy of this information. The requirements of LEED can be interpreted differently and depend on the project and scope of application. Therefore, BMS cannot accept any liability for the evaluation in terms of the LEED criteria. The user of the data sheet, the user / purchaser of the product and the consultant / planner, who is advising on this product has the duty to check the product for the intended application at their own responsibility. When a new version of this product verification is produced, the previous version loses its validity.

Source: [www.usgbc.org](http://www.usgbc.org)

■ System categories

Category Weighting



Category

Category considered in product verification

Integrative Process (IP)	No
Location and Transportation (LT)	No
Sustainable Sites (SS)	No
Water Efficiency (WE)	No
Energy and Atmosphere (EA)	No
Materials and Ressources (MR)	Yes
Indoor Environmental Quality (EQ)	Yes
Innovation (IN)	No
Regional Priority (RP)	No

Source: LEED v4 - New Construction

# Detailed Verification

Self declared according to LEED Building Design and Construction V4 (2015)

## Materials and Resources

### MR Credit Life-Cycle Impact Reduction - Option 4: Whole-Building Life-Cycle Assessment

The product has an Environmental Product Declaration (EPD), which can be used to calculate the building life cycle assessment under LEED MR Building Life-Cycle Impact Redcuts - Option 4: Whole-Building Life-Cycle Assessment:

<b>Fibre concrete spacers</b>	EPD available: No
-------------------------------	-------------------

An environmental product declaration exists for the product:

<b>Fibre concrete spacers</b>	No
Sand	No
Zement	Yes
Fasern	No
Wasser	No

EPD Owner of the Declaration:

<b>Fibre concrete spacers</b>	No Information
Sand	No Information
Zement	Verein Deutscher Zementwerke e.V.
Fasern	No Information
Wasser	No Information

EPD Publisher:

<b>Fibre concrete spacers</b>	No Information
Sand	No Information
Zement	Institut Bauen und Umwelt e.V. (IBU)
Fasern	No Information
Wasser	No Information

**EPD Programme holder:**

<b>Fibre concrete spacers</b>	No Information
Sand	No Information
Zement	Institut Bauen und Umwelt e.V. (IBU)
Fasern	No Information
Wasser	No Information

**EPD Declaration number:**

<b>Fibre concrete spacers</b>	No Information
Sand	No Information
Zement	EPD-VDZ-20210336-IAG1-DE
Fasern	No Information
Wasser	No Information

**EPD Issue date:**

<b>Fibre concrete spacers</b>	No Information
Sand	No Information
Zement	25.05.2022
Fasern	No Information
Wasser	No Information

**EPD valid to:**

<b>Fibre concrete spacers</b>	No Information
Sand	No Information
Zement	24.05.2027
Fasern	No Information
Wasser	No Information

**MR Credit BPDO - Environmental Product Declaration - Option 1: Environmental Product Declaration**
**Weighted Product Value on Credit BPDO - Environmental Product Declaration - Option 1: Environmental Product Declaration:**

<b>Fibre concrete spacers</b>	0 % weighted value
-------------------------------	--------------------

An environmental product declaration exists for the product:

<b>Fibre concrete spacers</b>	No
Sand	No
Zement	Yes
Fasern	No
Wasser	No

EPD Type:

<b>Fibre concrete spacers</b>	No Information
Sand	No Information
Zement	Industry-wide (generic) EPD (Type III) conform to ISO 14025, 14040, 14044, and EN 15804 or ISO 21930
Fasern	No Information
Wasser	No Information

#### ■ MR Credit BPDO - Environmental Product Declaration - Option 2: Multi-Attribute Optimization

Weighted Product Value on Credit BPDO - Environmental Product Declaration - Option 2: Multi-Attribute Optimization:

<b>Fibre concrete spacers</b>	0 % weighted value
-------------------------------	--------------------

An environmental product declaration exists for the product:

<b>Fibre concrete spacers</b>	No
Sand	No
Zement	Yes
Fasern	No
Wasser	No

Third party certified products that demonstrate impact reduction below industry average in at least three of the LCA-Categories GWP, ODP, AP, EP, POCP and ADPF:

<b>Fibre concrete spacers</b>	No Information
Sand	No Information
Zement	No
Fasern	No Information
Wasser	No Information

**MR Credit BPDO - Sourcing of Raw Materials - Option 1: Raw Material Source and Extraction Reporting**

Weighted Product Value on Credit BPDO - Sourcing of Raw Materials - Option 1: Raw Material Source and Extraction Reporting:

Fibre concrete spacers	0 % weighted value
------------------------	--------------------

There is a corporate sustainability reports (CSR) report from the manufacturer:

Fibre concrete spacers	No
Sand	No
Zement	Yes
Fasern	Yes
Wasser	No

CSR-Report according:

Fibre concrete spacers	No Information
Sand	No Information
Zement	Self-declared report
Fasern	Self-declared report
Wasser	No Information

**MR Credit BPDO - Sourcing of Raw Materials - Option 2: Leadership Extraction Practices**

Weighted Product Value on Credit BPDO - Sourcing of Raw Materials - Option 2: Leadership Extraction Practices:

Fibre concrete spacers	N/A
------------------------	-----

Extended producer responsibility

Content of materials for a closed-loop recycling or take-back programm in the entire product:

Fibre concrete spacers	No Information
------------------------	----------------

Are reverse logistics in place for the product?

Fibre concrete spacers	Yes
Sand	No
Zement	No
Fasern	No
Wasser	No

Do you want to enter the content of materials for a closed-loop recycling or take-back program for the entire product? Otherwise it will be automatically calculated from the components. If you do not have any components for your product, we recommend that you enter here the content of materials for the entire product:

Fibre concrete spacers	No
Sand	No Information
Zement	No Information
Fasern	No Information
Wasser	No Information

Content of materials for a closed-loop recycling or take-back program:

Fibre concrete spacers	0 %
Sand	No Information
Zement	No Information
Fasern	No Information
Wasser	No Information

#### Bio-based materials

Content of SAN-certified bio-based materials in the entire product:

Fibre concrete spacers	0 %
------------------------	-----

The product is made of bio-based materials:

Fibre concrete spacers	No
Sand	Yes
Zement	Yes
Fasern	No
Wasser	Yes

Do you want to enter the content of SAN-certified materials for the entire product? Otherwise it will be automatically calculated from the components. If you do not have any components for your product, we recommend that you enter here the content of SAN certified materials for the entire product:

Fibre concrete spacers	No Information
Sand	No
Zement	No
Fasern	No Information
Wasser	Yes

**Content of SAN-certified material:**

Fibre concrete spacers	No Information
Sand	0 %
Zement	0 %
Fasern	No Information
Wasser	0 %

**Wood products**
**Content of FSC-certified wood-based materials in the entire product:**

Fibre concrete spacers	0 %
------------------------	-----

**Materials reuse**
**Content of salvaged, refurbished, or reused products or materials in the entire product:**

Fibre concrete spacers	0 %
------------------------	-----

**The product is made of salvaged, refurbished, or reused products:**

Fibre concrete spacers	No
Sand	No
Zement	No
Fasern	No
Wasser	Yes

Do you want to enter the content of FSC-certified materials for the entire product? Otherwise it will be automatically calculated from the components. If you do not have any components for your product, we recommend that you enter here the content of FSC certified materials for the entire product:

Fibre concrete spacers	No Information
Sand	No Information
Zement	No Information
Fasern	No Information
Wasser	Yes

**Reused content**

Fibre concrete spacers	No Information
Sand	No Information
Zement	No Information
Fasern	No Information
Wasser	100 wt%

**Recycled content**
**Creditable recycled content according to LEED for the entire product:**

<b>Fibre concrete spacers</b>	<b>0.7 %</b>
-------------------------------	--------------

**Postconsumer recycled content for the entire product:**

<b>Fibre concrete spacers</b>	0 %
Sand	0 %
Zement	0 %
Fasern	0 %
Wasser	No Information

Do you want to enter the recycled content for the entire product? Otherwise it will be automatically calculated from the components. If you do not have components for your product, we recommend that you enter the recycling percentage for the entire product here:

<b>Fibre concrete spacers</b>	No
Sand	No
Zement	No
Fasern	No
Wasser	Yes

**Postconsumer recycled content of product (creditable):**

<b>Fibre concrete spacers</b>	1.4 %
Sand	0 %
Zement	0 %
Fasern	0 %
Wasser	No Information

**Recycled content post-consumer:**

<b>Fibre concrete spacers</b>	1.4 wt%
Sand	0 wt%
Zement	0 wt%
Fasern	0 wt%
Wasser	30 wt%

**Postconsumer recycled content for steel according to LEED:**

<b>Fibre concrete spacers</b>	0 %
Sand	0 %
Zement	0 %
Fasern	0 %
Wasser	No Information

**The product is made of steel:**

<b>Fibre concrete spacers</b>	No
Sand	No
Zement	No
Fasern	No
Wasser	No Information

**Recycled content pre-consumer:**

<b>Fibre concrete spacers</b>	0.6 wt%
Sand	0 wt%
Zement	0 wt%
Fasern	0 wt%
Wasser	70 wt%

**Preconsumer recycled content for the entire product:**

<b>Fibre concrete spacers</b>	1.4 %
Sand	0 %
Zement	0 %
Fasern	0 %
Wasser	70 %

**MR Credit BPDO - Material Ingredients - Option 1: Material Ingredient Reporting**
**Weighted Product Value on Credit BPDO - Material Ingredients - Option 1: Material Ingredient Reporting:**

<b>Fibre concrete spacers</b>	0 % weighted value
-------------------------------	--------------------

A manufacturer inventory with all ingredients (to at least 0.1 %) identified by CASRN exists for the product:

<b>Fibre concrete spacers</b>	No
Sand	No
Zement	Yes
Fasern	Yes
Wasser	No

A Health Product Declaration (HPD) exists for the product:

<b>Fibre concrete spacers</b>	No
Sand	No
Zement	Yes
Fasern	No
Wasser	No

Certified according Declare - all ingredients have been evaluated and disclosed down to 0,1 % = 1000 ppm:

<b>Fibre concrete spacers</b>	No
Sand	No
Zement	No
Fasern	No
Wasser	No

Certified according Product Lens:

<b>Fibre concrete spacers</b>	No
Sand	No
Zement	No
Fasern	No
Wasser	No

Certified according Cradle to Facts - NSF/ANSI 336: Sustainability Assessment for Commercial Furnishings Fabric:

<b>Fibre concrete spacers</b>	No
Sand	No
Zement	No
Fasern	No
Wasser	No

Assessed according ANSI/BIFMA e3 Furniture Sustainability standard - Product earned at least 3 points under 7.5.1.3 Advanced Level in e3-2014 or 3 points under 7.4.1.3 Advanced Level in e3-2012:

Fibre concrete spacers	No
Sand	No
Zement	No
Fasern	No
Wasser	No

Certified with Cradle to Cradle:

Fibre concrete spacers	No
Sand	No
Zement	No
Fasern	No
Wasser	No

Cradle to Cradle Standard Version:

Fibre concrete spacers	no entry
Sand	no entry
Zement	no entry
Fasern	no entry
Wasser	no entry

Cradle to Cradle Level:

Fibre concrete spacers	no entry
Sand	no entry
Zement	no entry
Fasern	no entry
Wasser	no entry

Certified with Cradle to Cradle Material Health:

Fibre concrete spacers	No
Sand	No
Zement	No
Fasern	No
Wasser	No

**Cradle to Cradle Material Health Level:**

Fibre concrete spacers	no entry
Sand	no entry
Zement	no entry
Fasern	no entry
Wasser	no entry

**For Cradle to Cradle Material Health are at least 90% of materials assessed by weight:**

Fibre concrete spacers	No
Sand	No
Zement	No
Fasern	No
Wasser	No

**MR Credit BPDO - Material Ingredients - Option 2: Material Ingredient Optimization**
**Weighted Product Value on Credit BPDO - Material Ingredients - Option 2: Material Ingredient Optimization:**

Fibre concrete spacers	0 % weighted value
------------------------	--------------------

The product contains no ingredients listed on the REACH Authorization list – Annex XIV, the Restriction list – Annex XVII and the SVHC candidate list. This is proved down to fully inventoried chemical ingredients to 100 ppm (0,01 %):

Fibre concrete spacers	No
Sand	No
Zement	No
Fasern	No
Wasser	Yes

The Product have fully inventoried chemical ingredients to 100 ppm and no Benchmark 1 hazard according to GreenScreen v1.2 Benchmark. The product is assessed with "GreenScreen List Translator":

Fibre concrete spacers	No
Sand	No
Zement	No
Fasern	No
Wasser	No

The Product have fully inventoried chemical ingredients to 100 ppm and no Benchmark 1 hazard according to GreenScreen v1.2 Benchmark. The product is assessed with "GreenScreen Assessment":

<b>Fibre concrete spacers</b>	No
Sand	No
Zement	No
Fasern	No
Wasser	No

**Certified with Cradle to Cradle:**

<b>Fibre concrete spacers</b>	No
Sand	No
Zement	No
Fasern	No
Wasser	No

**Cradle to Cradle Standard Version:**

<b>Fibre concrete spacers</b>	no entry
Sand	no entry
Zement	no entry
Fasern	no entry
Wasser	no entry

**Cradle to Cradle Level:**

<b>Fibre concrete spacers</b>	no entry
Sand	no entry
Zement	no entry
Fasern	no entry
Wasser	no entry

■ MR Credit BPDO - Material Ingredients - Option 3: Product Manufacturer Supply Chain Optimization

**Weighted Product Value on Credit BPDO - Material Ingredients - Option 3: Supply Chain Optimization:**

<b>Fibre concrete spacers</b>	0 % weighted value
-------------------------------	--------------------

**Environmental Management System according ISO 14001:**

Fibre concrete spacers	Yes
Sand	No
Zement	Yes
Fasern	No
Wasser	No

**Manufacturer is certified according OHSAS 18000 - Health and Safety Management System:**

Fibre concrete spacers	No
Sand	No
Zement	No
Fasern	No
Wasser	No

**Location Valuation Factor**
**Information for Location Valuation Factor is available:**

Fibre concrete spacers	No
------------------------	----

**Place of raw material extraction (e.g D-70563 Stuttgart):**

Fibre concrete spacers	N/A
Sand	94437 Mamming
Zement	D-93133 Burglengenfeld
Fasern	N/A
Wasser	No Information

**Place of manufacture (e.g. D-70563 Stuttgart):**

Fibre concrete spacers	Leibfing 94339
Sand	94437 Mamming
Zement	D-93133 Burglengenfeld
Fasern	N/A
Wasser	No Information

Place of purchase incl. distribution (e.g. D-70563 Stuttgart):

Fibre concrete spacers	Weltweit
Sand	94437 Mamming
Zement	D-93133 Burglengenfeld
Fasern	N/A
Wasser	No Information

The distance between place of raw material extraction and manufacture is less than 100 miles/160 km:

Fibre concrete spacers	No
Sand	Yes
Zement	No
Fasern	No
Wasser	No

## ■ Indoor Environmental Quality

### ■ EQ Credit Low-Emitting Materials (except Healthcare and Schools)

The entire product contributes toward satisfying EQ Credit: Low-Emitting Materials:

Fibre concrete spacers	Yes
------------------------	-----

The product contributes toward satisfying EQ Credit 4: Low-Emitting Materials:

Fibre concrete spacers	Yes
Sand	Yes
Zement	Yes
Fasern	No Information
Wasser	No Information

Inherently nonemitting sources

The entire product contributes toward satisfying EQ Credit 4: Low Emitting Materials, Category inherently nonemitting sources:

Fibre concrete spacers	Yes
------------------------	-----

The product contributes toward satisfying EQ Credit 4: Low Emitting Materials, Category inherently nonemitting sources:

Fibre concrete spacers	Yes
Sand	Yes
Zement	Yes
Fasern	No Information
Wasser	No Information

The product is an inherently nonemitting source, like stone, ceramic, powder-coated metals, plated or anodized metal, glass, concrete, clay brick, and unfinished or untreated solid wood flooring:

Fibre concrete spacers	No
Sand	Yes
Zement	Yes
Fasern	No
Wasser	No

#### ■ Contact Details Manufacturer

##### Max Frank GmbH & Co. KG

Mitterweg 1  
94339 Leiblfing  
DE  
<http://www.maxfrank.de/>



#### ■ Disclaimer

This verification is the evaluation and ranking of products in terms of the certification system LEED version 4 (Building Design and Construction). The USGBC (U.S. Green Building Council) generally does not certify products. Therefore the project team or the manufacturer is responsible to declare compliance with respect to the LEED criteria. Notice: This verification is generated by the Assessment Service of BMS. The distribution or publication by third parties is not permitted. The data sheet is not a LEED certification document. The information is based on the manufacturer's specifications. Despite a diligent treatment of all information BMS can not make any warranties about the completeness, reliability and accuracy of this information. The requirements of LEED can be interpreted differently and depend on the project and scope of application. Therefore, BMS cannot accept any liability for the evaluation in terms of the LEED criteria. The user of the data sheet, the user / purchaser of the product and the consultant / planner, who is advising on this product has the duty to check the product for the intended application at their own responsibility. When a new version of this product verification is produced, the previous version loses its validity.