

Product Verification

Sustainability

Self declared according to DGNB Neubau 2018

■ Product Systems

Sub-structure waterproofing system Zemseal®

Max Frank GmbH & Co. KG

Construction seal with high quality usage of basements

Additional waterproofing measures are usually required to meet all the structural and physical requirements that arise in waterproof structures. In the case of high usage requirements, the use of a safe, fresh concrete composite system has proven its worth. Our Zemseal® FBV system encloses the water-impacted building components and forms a secure and integral external waterproof protection. MAX FRANK Zemseal® FBV technology combines mechanical and adhesive bonding - "dual-bond" technology.

<https://www.maxfrank.com/intl-de/produkte/dichtungstechnik/o6-frischbetonverbund-system-zemseal/>



Product Assessment

Environmental Quality (ENV)

Criteria	Product Verification
ENV 1.1 Building life cycle assessment (Updated on: 16.07.2018)	EPD available: No
ENV 1.2 Local environmental impact (Updated on: 05.01.2022)	Quality level 4 of 4
ENV1.3.1 Responsibly sourced raw materials	quality level 1 of 3
ENV1.3.2 Secondary raw materials	quality level 0 of 2

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: EPD available: No
- Achieved quality level in DGNB 2018 Criteria ENV 1.2 Local environmental impact for the entire product: Quality level 4 of 4
- The product achieves the following quality level in criterion ENV1.3.1 (Responsibly sourced raw materials). quality level 1 of 3
- The product achieves the following quality level in criterion ENV1.3.2 (Secondary raw materials). quality level 0 of 2

Product Properties

Ingredients:

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
Free (< 0,1 %) of halogens:	Yes
Content of solvents:	0 %
Percentage of the product's composition, that is known to the chemical ingredient level	100 wt%
Recycled content post-consumer:	0 wt%
Recycled content pre-consumer:	0 wt%
Free of plasticizer according to VdL-RL01:	No
Free (< 0,1 %) of hydrocarbon (KWS) plasticizer:	Yes
Content of VOC:	< 0,01 %

Manufacturer:

Environmental Management System according ISO 14001:	Yes
Are reverse logistics in place for the product?	No

Emissions:

Carcinogens 1A and 1B after 3 days according ISO-16000 / AgBB:	0 mg/m ³
Carcinogens 1A and 1B after 28 days according ISO-16000 / AgBB:	0 mg/m ³
Formaldehyde emissions after 28 days according DIN EN 717-1:	< 0,006 mg/m ³

Life Cycle Assessment:

Functional use period	min. 50 a
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Circularity:

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

Was the product designed for clean incineration? No

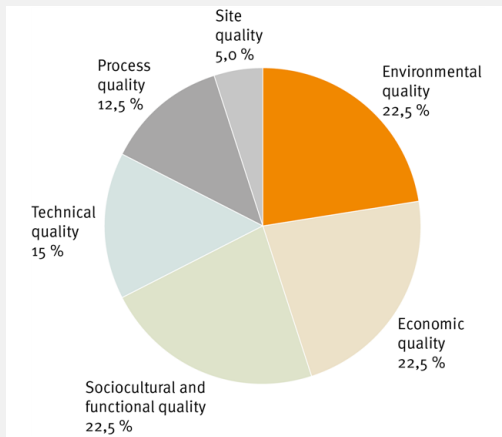
System description

The DGNB certification system was founded by the "German Sustainable Building Council" and first appeared on the market in 2008. The DGNB system evaluates buildings holistically on the basis of individual criteria within the categories Ecological Quality, Economic Quality, Sociocultural and Functional Quality, Technical Quality, Process Quality and Location Quality. Different profiles allow the certification of new buildings and existing buildings, as well as of quarters in Germany and Internationally. Buildings can achieve a certification in Bronze, Silver, Gold and Platinum. Up to now, more than 3,500 projects have been awarded by the DGNB (as of June 2018).

Source: www.dgnb.de

System categories

Category Weighting



Category

Category considered in product verification

Environmental quality (ENV)	Yes
Economic quality (ECO)	No
Sociocultural and functional quality (SOC)	No
Technical quality (TEC)	No
Process quality (PRO)	Yes
Site quality (SITE)	No

Source: DGNB 2018

Detailed Verification

Self declared according to DGNB Neubau 2018

■ Environmental Quality (ENV)

■ ENV 1.1 LBuilding life cycle assessment (Updated on: 16.07.2018)

The product has an Environmental Product Declaration (EPD) which can be used to calculate the building life cycle assessment:

Sub-structure waterproofing system Zemseal®	EPD available: No
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An environmental product declaration exists for the product:

Sub-structure waterproofing system Zemseal®	No
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■ ENV 1.2 Local environmental impact (Updated on: 05.01.2022)

Achieved quality level in DGNB 2018 Criteria ENV 1.2 Local environmental impact for the entire product:

Sub-structure waterproofing system Zemseal®	Quality level 4 of 4
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Achieved quality level in DGNB 2018 Criterion ENV 1.2 Local environmental impact:

Sub-structure waterproofing system Zemseal®	Quality level 4
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Row 36: Plastic films on the roof and foundation - plastic films are considered for sealing on the roof and exterior walls UG.

Achieved quality level in DGNB 2018 ENV 1.2 Row 36 for the entire product:

Sub-structure waterproofing system Zemseal®	Quality level 4
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Achieved quality level in DGNB 2018 ENV 1.2 Row 36:

Sub-structure waterproofing system Zemseal®	Quality level 4
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Plastic - films on roof and foundations (DGNB ENV1.2 Row 36):

Sub-structure waterproofing system Zemseal®	Yes
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Free of lead, cadmium and chrome-VI:

Sub-structure waterproofing system Zemseal®	Yes
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Free of tin:

Sub-structure waterproofing system Zemseal®	Yes
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■ ENV1.3.1 Responsibly sourced raw materials

The product achieves the following quality level in criterion ENV1.3.1 (Responsibly sourced raw materials).

Sub-structure waterproofing system Zemseal®	quality level 1 of 3
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The raw materials for the production of the product were extracted, mined or manufactured free of child and forced labor.

Sub-structure waterproofing system Zemseal®	Yes
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For the raw materials used for the production of the product, illegal raw material mining / manufacturing can be excluded.

Sub-structure waterproofing system Zemseal®	Yes
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Material extraction and further processing takes place entirely in Europe.

Sub-structure waterproofing system Zemseal®	Yes
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The product meets the requirements of quality level 1:

Sub-structure waterproofing system Zemseal®	quality level 1 of 1
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The manufacturer takes responsibility for responsible and transparent resource extraction and can demonstrate this through CSR reports and proof of origin of the raw materials.

Sub-structure waterproofing system Zemseal®	Yes
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■ ENV1.3.2 Secondary raw materials

The product achieves the following quality level in criterion ENV1.3.2 (Secondary raw materials).

Sub-structure waterproofing system Zemseal®	quality level 0 of 2
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The raw materials for the production of the product were extracted, mined or manufactured free of child and forced labor.

Sub-structure waterproofing system Zemseal®	Yes
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For the raw materials used for the production of the product, illegal raw material mining / manufacturing can be excluded.

Sub-structure waterproofing system Zemseal®	Yes
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Material extraction and further processing takes place entirely in Europe.

Sub-structure waterproofing system Zemseal®	Yes
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other materials

The product meets the quality level in the category of other material groups:

Sub-structure waterproofing system Zemseal®	0 of 1
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The product does not consist of any of these materials

Sub-structure waterproofing system Zemseal®	Yes
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Recycled content pre-consumer:

Sub-structure waterproofing system Zemseal®	0 wt%
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Recycled content post-consumer:

Sub-structure waterproofing system Zemseal®	0 wt%
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■ Contact Details Manufacturer

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■ Disclaimer

This verification is the evaluation and ranking of products in terms of the certification system DGNB 2018 (New construction building). The DGNB (Deutsche Gesellschaft für Nachhaltiges Bauen) generally does not certify products. Therefore the project team or the manufacturer is responsible to declare compliance with respect to the DGNB 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 DGNB 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 DGNB 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 DGNB 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.