

Technical data sheet

TM DS 250 Flex_en - Version 2.3
Revision: 30.11.2023

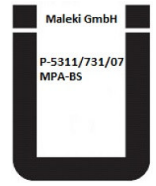


Maleki-DS 250 Flex

Flexible 2K - waterproofing

Item-No.: 1315

Flexible crack-bridging 2K – waterproofing for indoor and outdoor use against pressing and non-pressing water.



Technical data

Mixing ratio	1 part Comp. A (Powder) – 1 part Comp. B (Liquid)	Basis	Mineral Dispersion
Water impermeability	up to 2 bar	Color	Grey
Processing temperature	min. +5 °C, max. +35 °C	Processing time at 20°C	approx. 50 min
Single layer thickness	1 mm	Necessary layers	2 layers
Total application thickness With cavities	2 mm max. 3 mm in total	Consumption	3 kg/m ² in 2 coats (for 2 mm total layer thickness)
Loadability	Curing at 20°C		
Walkable	6 hours		
Mechanical load	1 day		

Properties

- Eco-Binder technology
- environmentally friendly
- VOC – and APEO-free
- high resistance against salt water and chloride
- tested according to DIN EN 14891
- waterproof up to 2 bar
- flexible and crack-bridging to at least 1.3 mm
- durable at early stage
- easy application

Range of usage

- for indoor and outdoor use
- waterproofing of building elements, tanks, basins and cellars
- tanks with 20 m water level
- waterproofing for swimming pools
- waterproofing in combination with ceramic covers according to EN 12004 (balconies, terraces, showers, bathrooms with floor drains and swimming pools)
- as carbonation inhibiting agent on concrete surfaces in splash water areas
- waterproofing against rising damp for cellar masonry work.
- ZDB-moisture classes 0, A01, A02 and B0

Product systems

- Agriculture
- General use: Flexible waterproofing

Preparation of substrate

Prior to coating, ensure that all wall or floor surfaces are stable and have sufficient surface tensile strength. The surface should also be ready for coating, dry or matt damp, clean and free from all kinds of debris. Remove residual water. In case of pressing water or acute leakages the substrate must be pre-filled before application of Maleki-DS 250 Flex. Therefore, the specific spots are treated or filled with water stop cement to ensure sufficient curing of the subsequent waterproofing.

Suitable for all concrete and masonry work surfaces with fine-pored surfaces such as render surfaces in class P III and P II (in indoor areas). Incompletely filled joints, holes and wide cracks should be closed. Remove interfering edges. Large-pored substrates (e.g. coarse particles, light-weight concrete blocks) must be filled first. Therefore, use Maleki-RM 500 or Maleki-VM 530 depending on the application.

On highly absorbent surfaces apply one layer of primer if necessary. For this purpose mix component B with clear water in a ratio of 1:1. Apply the material with a long-haired paint roller until the substrate is saturated. Apply Maleki-DS 250 Flex after sufficient drying time of the primer.

Rounding of edge areas

For rounding of wall-floor or wall-wall transitions use Maleki-DS 220 or Maleki-DS 240 for preparation of coves. Please refer to the respective technical data sheets for more information. All cove areas must be fully covered with two layers of Maleki-DS 250 Flex for a complete waterproofing and protection against damaging chemicals.

Mixing and application

Maleki-DS 250 Flex is supplied in adjusted pre-packed proportions of compounds (5kg Component A and 5kg

Component B, total 10kg). Mix the material by using a mixing machine. First, add Component B (Liquid) into the mixing container. Then, pour Component A (Powder) inside while stirring. For manual applications the hand-held mixer BSM 2882 by Baier Tools and the Collomix mixing paddle KR 140 HF are recommended. By using the respective mixing paddle, a proper thread adapter must be used. For mixing of partial quantities in smaller containers the mixing paddle KR 90 S for drilling machines is recommended. The material has to be mixed intensely for 3 minutes until a uniform, lump-free mortar is formed. The mixture must not contain any residues of dry powder.

Waterproofing of buildings

Maleki-DS 250 Flex is applied in two layers. The single layer thickness for each layer is about 1 mm. The maximum thickness of the whole coating is 2 mm. In the case of depressions in the substrate, the total layer thickness can be increased to a maximum of 3 mm. The substrate should only be matt damp, avoid puddles. For optimal adhesion and for complete filling of the substrate to be coated the first layer is applied by fulling with a brush. The second coating is applied by brush or trowel. If both layers are applied one after another, do not pre-wet the surface between application of each layer. The application of the second layer is carried out after 3 – 6 hours (at 20°C). Depending on ambient temperature and relative humidity the specified waiting time may vary. For the use of Maleki-DS 250 Flex as an intermediate layer the second coating has to be applied with a brush. To ensure uniform curing of the material, do not exceed the consumption stated above.

Bonded waterproofing under ceramic coverings

In order to guarantee a uniform coating the substrate has to be even and matt damp before application. For a continuous waterproofing in bathrooms and wet rooms the waterproofing slurry is applied in a single application with an application thickness of 1 mm. A uniform coating thickness has to be ensured. For subsequent tiling work a sufficient drying time of at least 6 hours has to be observed. The exact waiting time is depending on the local humidity conditions.

Post-processing and coating protection

The coating has to be protected from too quick drying (solar radiation, draft), frost and rain for the 1st 24 hours. Do not cover the finished surface with foils or other materials.

Tools and cleaning

Hand-held mixer, stirrer, brush, trowel, long-haired paint roller. All equipment should be washed clean and dried before and after application.

Packaging and shelf-life

Standard packaging: 10 kg bucket with 5 kg Component A (Powder) and 5 kg Component B (Liquid).

For large areas, Maleki-DS 250 Flex can also be supplied in larger packages on request:

Comp. A (Powder): 25 kg paper bag

Comp. B (Liquid): 25 kg canister or 1000 kg IBC container.

Original packing is storable for 12 months in dry and controlled temperate areas (not below 0 °C, recommended 10 – 25 °C).

Reseal opened containers immediately and use within a very short time.

Associated products

Maleki-RM 500	Item-No. 1416
Maleki-VM 530	Item-No. 1442
Maleki-DS 220	Item-No. 1314
Maleki-DS 240	Item-No. 1329
Maleki-DS 250 Flex	Item-No. 1315

Safety notes

Please refer to the Material Safety Data Sheet which can be requested on www.malekigmbh.com for further information on safety during transportation, storage, handling and disposal. Follow instructions on the packaging.

Relevant regulations and fact sheets

When applying Maleki-DS 250 Flex and subsequently reworking it with other coverings, the following regulations and fact sheets must generally be observed, unless otherwise specified in this technical data sheet:

DIN 14891:2017-05

Liquid applied water impermeable products for use beneath ceramic tiling bonded with adhesives - Requirements, test methods, assessment and verification of constancy of performance, classification and marking

DIN 18195:2017-07

Waterproofing of buildings – Vocabulary

DIN 18336:2019-09

German construction contract procedures (VOB) – Part C: General technical specifications in construction contracts (ATV) – Waterproofing

DGfM Fact sheet for waterproofing of masonry

Notes

Do not apply Maleki-DS 250 Flex on frozen substrates or in freezing conditions and do not apply during rain. Usually, the waterproofing is carried out on the water-facing side (positive stress). If an internal waterproofing of buildings is required (negative stress) - in particular, for renovation of existing buildings - the building structure must be able to withstand the water pressure.


The selection of a suitable waterproofing depends on the water load, the composition of the ground and the structural design. All these factors should be taken into account before starting work.

The content of this technical data sheet corresponds to the latest development and our applications experience. All information is based on ideal conditions and therefore does not apply for every application purpose. Due to different materials, substrates and different actual site conditions no warranty is given for the customer's application. In particular, we assume no liability based on this information or any verbal statements. The only exception is when we can be blamed for the case of intent or gross negligence. In that case the customer has to prove that he has transmitted all required information completely and in a timely manner for a proper and promising evaluation by Maleki GmbH. Any further details regarding the application of our products have to be confirmed in writing by Maleki GmbH. The customer must test the product's suitability for the intended application and purpose. We reserve the right to change the product

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specifications due to the ongoing development. Apart from that our general terms and conditions are valid. This data sheet supersedes all earlier technical data on this product. The technical data sheet can be requested on www.malekigmbh.com.

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Maleki GmbH Carl-Stolcke-Straße 1 D - 49090 Osnabrück Fon. +49 541 2024799-0 Fax +49 541 2024799-9 15 No.1315 DE	
DIN EN 14891 DIN EN 14891: ZA.1 CM Flexible crack-bridging waterproofing.	
Initial adhesive strength:	≥ 0.5 N/mm ²
Water impermeability:	No water permeation
Crack bridging:	≥ 0.75 mm
Adhesive strength after thermal aging:	≥ 0.5 N/mm ²
Adhesive strength after contact with water:	≥ 0.5 N/mm ²
Adhesive strength after contact with lime water:	≥ 0.5 N/mm ²
Adhesive strength after freeze-thaw cycling:	≥ 0.5 N/mm ²
Release of hazardous substances:	NPD