

# Technical data sheet

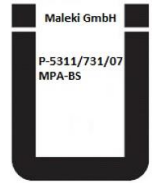
TM DS 250 Flex\_en - Version 1.6  
Revision: 13.03.2017



## 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

<b>Mixing ratio</b>	1 part powder – 1 part liquid	<b>Basis</b>	Powder Liquid	Cement/Composite Dispersion
<b>Water impermeability</b>	up to 3 bar	<b>Color</b>	Grey-brown	
<b>Processing temperature</b>	min. +5 °C, max. +35 °C	<b>Processing time at 20°C</b>	approx. 90 min	
<b>Application thickness</b>	min. 1 mm	<b>Necessary layers</b>	2 layers according to DIN 18195	
<b>Loadability</b>	Curing at 20°C	<b>Consumption</b>	3 kg/m <sup>2</sup> in 2 coats	
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 3 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 30 m water level
- waterproofing for swimming pools and roofs
- 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

### Preparation of substrate

Suitable substrates:

- concrete and masonry
- cementitious plaster and screed

All wall or floor substrates must be load-bearing, free of loose material and matt-damp. Water repelling residues should be

removed. Acute leakages (or pressing water) have to be waterproofed with Maleki-WS 1 to ensure sufficient curing of the subsequent coating with Maleki-DS 250 Flex. 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 and projecting broken-off edges. Coarse pored substrates (e.g. aggregate particle-pored, light-weight concrete blocks) must be filled first. Selection of appropriate waterproofing is based on the water pressure, soil nature and building construction. These factors should be identified as early as possible prior to any waterproofing application.

### Mixing and application

Maleki-DS 250 Flex is supplied in adjusted pre-packed proportions of compounds (5kg dry mortar and 5kg liquid component, total 10kg). All dry mortar has to be mixed with the entire liquid component (first add liquid, then pour the powder into the mixing container) while constantly mixing for about 3 min until a uniform, lump-free mortar is formed. The mixture must not contain any residues of dry powder. Small quantities can be mixed using an electrical drill with a speed of max. 800 rpm.

#### Waterproofing of buildings

Waterproofing is carried out in at least 2 full-surface applications. Minimum total thickness of the layer must be 1 mm (min) at any point. Pre-wet the substrate with water but avoids puddles. The first layer of Maleki-DS 250 Flex must always be applied by brush. The fine mortar is rubbed into the ground intensively to provide saturation coverage and closed surface. The second layer can be applied either by brush or by trowel. It must be rubbed off thereafter with a brush if a trowel was used. Application of the second coating can take place after 3 to 6 hours (at +23°C). Consumption of waterproofing

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should not exceed 2.0kg/m<sup>2</sup> per coating to ensure a constant drying. Protect the fresh waterproofing layer for 24 hours from drying out too quickly in wind, under sun, frost and rain.

## 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.

## Tools and cleaning

Mixing container, mixing device, drill, mixing peddle, compulsory mixer, trowel or brush.

All equipment should be washed clean and dried before and after application.

## Packaging and shelf-life

10 kg bucket with 5 kg Comp. A (Powder) and 5 kg Comp. B (Liquid).

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.

## Safety notes


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

## Notes

Do not use Maleki-DS 250 Flex below +5°C or above 35°C or on frozen substrates, in freezing weather, high thermal loads or wind. Mixed material should be used within the given pot-life (90 min. at 20°C). Mortar cannot be reused by adding water or other additives. Protect the fresh waterproofing layer for 24 hours from drying out too quickly in wind, under sun, frost and rain. To achieve its complete waterproofing effect, the waterproofing material must be able to set and dry thoroughly. For this any rising of moisture from the substrate should be avoided during hardening of the waterproofing. To avoid any accumulation of water on the surface the ambient temperature should be at least 3°C above the prevailing dew point during application. In case of high humidity sufficient heating or ventilation has to be ensured.

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

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](http://www.malekigmbh.com).

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<b>DIN EN 14891</b> <b>DIN EN 14891: ZA.1 CM</b> Flexible crack-bridging waterproofing.	
Initial adhesive strength:	≥ 0.5 N/mm <sup>2</sup>
Water impermeability:	No water permeation
Crack bridging:	≥ 0.75 mm
Adhesive strength after thermal aging:	≥ 0.5 N/mm <sup>2</sup>
Adhesive strength after contact with water:	≥ 0.5 N/mm <sup>2</sup>
Adhesive strength after contact with lime water:	≥ 0.5 N/mm <sup>2</sup>
Adhesive strength after freeze-thaw cycling:	≥ 0.5 N/mm <sup>2</sup>
Release of hazardous substances:	NPD