

Maleki-TPC 200

Silicate acid protection

Item-No.: 1310

High performance and extreme acid resistant mortar for protection of mineral substrates in acidproof installations or industrial areas. High chemical resistance according to DIN EN 12808.

Technical data

Mixing ratio Slurry Creamy	0.80 - 0.95 l water per 5 kg powder 0.85 – 0.95 L 0.80 L	Color	Grey
Processing temperature Relative humidity	min. +10 °C max +35 °C Max. 60%	Processing time at 20°C	approx. 45 min
Layer thickness	1.5 – 3 mm (in 2 layers)	Consumption per mm	approx. 1.8 kg/m ²
Loadability /chem. resistance	Curing at 20°C	Density	
Walkable	1 day	Bulk density	approx. 1.3 kg/dm ³
Fully loadable	7 days	Fresh mortar density	approx. 2.0 kg/dm ³
Water resistant	9 days		

Properties

- Silicate-Technology
- environmentally friendly
- mineral
- VOC and APEO-free
- extreme high chemical resistance at the range of pH 0 – 14 according to DIN EN 12808
- fulfils the requirements for discharge capability according to BGR 132
- salt water resistant
- extreme high adhesion on substrate according to DIN EN 1015
- fire-resistant up to 1350°C without cracks
- high surface hardness and abrasion resistance
- easy application

Range of usage

- for indoor use
- for protection against acids and abrasion on concrete surfaces and masonry
- extreme acid-proof installations
- pipelines and wastewater pipes
- laboratories
- breweries
- fire protection areas

Product systems

Acid protection

Preparation of substrate

Prior to coating, ensure that the surface is stable and has sufficient surface tensile strength. The surface should also be ready for coating, dry or matt damp, clean and free from all kinds of debris. Mechanical surface preparation e.g. shotblasting is recommended. Due to roughening the surface, the adhesion for the subsequent layer can be improved.

Deeper ruptures must be filled with Maleki-RM 500 or Maleki-VM 530. The surface should be permanently vibration-free and crack-free. Already existing cracks must be repaired professionally. The adhesive strength of the substrate must be at least 1.5 N/mm.

Pre-wetting of the substrate is not necessary and may cause poor adhesion and curing of the mortar.

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-TPC 200 for complete protection against damaging chemicals.

Mixing and application

Mix the material by using a mixing machine. First, add 0.80 – 0.95 liters of water per 5 kg powder material into the mixing container. Then, pour the 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 1 minute. In the beginning the mortar looks dry to

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semi-dry. After a setting time of 3 minutes the material is mixed again for 1 more minute. Mix only as much material as can be applied within 45 minutes. Maleki-TPC 200 must not be mixed with cement-based products. Do not mix Maleki-TPC 200 with any other liquid component except water.

Maleki-TPC 200 is applied in at least two layers. The single layer thickness for each layer is about 1.5 mm. The maximum thickness of the whole coating is 3 mm. The consumption should be approx. 1.8 kg/m^2 per application.

For optimal adhesion and for complete filling of the substrate to be coated the first layer is applied by fulling with a brush. Therefore, the material is mixed as a slurry. Each layer must have the minimum thickness of 1.5 mm across all points. The second coating is applied by trowel. If both layers are applied one after another, do not pre-wet the surface between application of each layer. Please refer to the table above for the required mixing ratio for each procedure.

Apply a minimum of 2 layers within 4 hours. If the second layer has to be applied later, observe a waiting time of at least 4 days. Open Maleki-TPC 200 bags must be processed within 6 hours.

Post-processing and coating protection

If smoothing of the surface is necessary after the end of the processing time, this step should be carried out without additional water.

After application the surface must be kept dry at 60% relative humidity and 20°C for 7 days and must be protected from direct sunlight for additional 2 days before it can be loaded with water. If the humidity is higher or the temperature is lower, the loadability times of the mortar will increase.

For early loading (water and acid load) of new surfaces apply a protective layer of Maleki-VS 930 after one day. The-ready-to use mixture is applied in two steps. The consumption is approx. 50 g/m². The treated surfaces are loadable after one day. For further information about the application of Maleki-VS 930 please refer to the corresponding technical data sheet.

Tools and cleaning

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

Packaging and shelf-life

3 x 5 kg bags of mortar in a bucket.

100 x 5 kg bags of mortar in a carton.

Original packing is storable for 9 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-VS 930	Item-No. 1828

Safety notes

Maleki-TPC 200 reacts alkaline with moisture/water. Avoid inhaling dust when opening packaging. Protect skin and eyes during the mixing process.

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

Notes

Maleki-TPC 200 is not suitable for exposed outdoor surfaces or on areas with permanent water load.

Do not mix with cement-based products. Do not apply Maleki-TPC 200 on frozen substrates or in freezing conditions and do not apply during rain. Use structural provisions such as expansion joints to avoid cracks in the coating. Sealing of joints has to be done with flexible or permanently elastic sealing materials. Maleki-TPC 200 is a special-purpose product which requires previous work instructions before first use.

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.

