

Maleki-SBS 860

Silicate reprofiling and grout mortar

Item-No.: 1520

High performance, environmentally friendly silicate mortar for sewage water areas. Extreme resistance against chemicals in the range of pH 0 – 14.

Technical data

Mixing ratio	0.75 – 0.85 l water per 5 kg powder	Grain	0 – 2 mm
Slurry	0.85 L		
Creamy	0.75 – 0.8 L		
Compressive strength	≥ 35 N/mm ²	Flexural strength	approx. 10 N/mm ²
Processing temperature	min. +10 °C max +35 °C	Processing time at 20°C	approx. 35 min
Relative humidity	Max. 80%	Consumption	
Application thickness	4 – 50 mm	Joint filler	approx. 0.2 – 2 kg/m ² *
Joint gap	5 – 20 mm	Reprofiling mortar	approx. 8 kg /m ² at a layer thickness of 4 mm
Loadability**	Curing at 20°C	Density	
Walkable	1 day	Bulk density	approx. 1.3 kg/dm ³
Full water load	2 days	Fresh mortar density	approx. 2.0 kg/dm ³
Fully loadable	3 days		
Chemical load	7 days		

* Depending on joint gap

** In closed vessels without ventilation the loadability times could increase by 1 – 2 days depending on prevailing humidity.

Properties

- Silicate-Technology
- environmentally friendly
- mineral
- VOC – and APEO-free
- high chemical resistance at the range of pH 0 – 14
- sulfate resistant according to DIN 4030
- salt water resistant
- waterproof up to 1.5 bar
- extrem high adhesion on substrate
- high surface hardness and abrasion resistance
- easy application

Range of usage

- for indoor and outdoor use
- for putty and joint work
- for mechanical and chemical stressed areas
- for grouting of canal clinkers, canal sole half shells in drains and for putty and reprofiling work
- for general canal or shaft system work
- acid resistant installations
- agriculture
- garages and warehouses
- laboratories
- commercial kitchens
- breweries

Preparation of substrate

Prior to coating or jointing, 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. Ensure a sufficient joint depth of at least 5 mm. The edges must be free from oil and grease.

For reprofiling applications mechanical surface preparation e.g. shot-blasting is recommended. Due to roughening the surface, the adhesion for the subsequent layer can be improved. 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/mm². Application of waterproofings for areas with water under pressure is only possible on concrete surfaces.

Pre-wet absorbent surfaces until the surface is matt damp. Avoid puddles. In case of pressing water or acute leakages the substrate must be pre-filled before application of Maleki-SBS 860. Therefore, the specific spots are treated or filled with water stop cement to ensure sufficient curing of the subsequent waterproofing. In case of internal waterproofings against negative water pressure, the substrate must provide a sufficient bonding strength.

Rounding of edge areas

For rounding of wall-floor or wall-wall transitions use Maleki-DS 220 for preparation of coves. Please refer to the technical data sheet of Maleki-DS 220 for more information. All cove areas must be fully covered with Maleki-SBS 860 for a complete waterproofing and protection against damaging chemicals.

Mixing and application

Mix the material by using a mixing machine. First, add 0.75 – 0.85 liters of water per 5 kg powder material into the mixing container. Then, pour the powder inside while stirring. For applications with a hand-held mixer the Collomix mixing paddle KR 140 HF is recommended. By using the respective mixing paddle a proper thread adapter must be used if necessary. 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 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 35 minutes. Maleki-SB 860 must not be mixed with cement-based products. Do not mix Maleki-SWP 270 with any other liquid component except water.

Grout mortar

For the use as acid resistant grout mortar for ceramic tiles Maleki-SBS 860 is filled into the open joint network with a flexible jointing board by using the usual technique.

After complete filling remove excess material from the surface diagonally to the joint direction. For grouting of rougher surfaces (canal clinkers and canal sole half shells, etc.) Maleki-SBS 860 is applied with standard jointing board and suitable joint trowel.

To clean the grouting use a washboy-set. This must either be new or must have been used solely for silicate-based products. Dampen the surface with the sponge board slightly (max. matt damp) and clean the tile surface after 1 minute of contact time. Use minimum amount of water! Avoid water puddles on tiles and joints.

Replace the cleaning water as often as no residues remain on the surface. Any initially dried residue still left is removed by cleaning the entire surface with clean water. Any initially dried residue still left is removed by cleaning the entire surface with clean water. All residues which run down the wall surface should be removed with a sponge. Due to the minimum amount of water during the cleaning procedure a clean and edge-free joint pattern may not be achieved.

Reprofiling work:

For optimal adhesion and for complete filling of the substrate to be coated Maleki-SBS 860 is applied by fulling with a brush. Therefore, the material is mixed as a slurry. The second coating is applied wet-in-wet by trowel up to the intended layer thickness. Please refer to the table above for the required mixing ratio for each procedure.

Open Maleki-SBS 860 bags must be sealed airtight or have to be processed within 6 hours. For further applications in lower layer thicknesses we recommend the use of Maleki-SWP 270. Therefore, the application of Maleki-SWP 270 should be done immediately and without prewetting the surface of Maleki-SBS 860.

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.

The coating has to be protected from too quick drying (solar radiation, draft), frost and rain for 2 days. Do not cover the

finished surface with foils or other materials. If Maleki-SB 860 is applied in closed vessels without any air circulation, an additional ventilation or drying system is necessary. Otherwise there would be a danger of moisture condensation. In this case the loadability times of the mortar could increase by 1 – 2 days (see table).

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

Mixing device, stirrer, brush, trowel, jointing board joint trowel, washboy set.

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

Packaging and shelf-life

3x 5 kg bags of mortar in a bucket.

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.

Safety notes

Maleki-SBS 860 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 www.malekigmbh.com for further information on safety during transportation, storage, handling and disposal. Follow instructions on the packaging.

Notes

Because of different properties of the substrates and the environment we cannot guarantee a uniform coloring. The appearance should be tested on a separate location if required. Therefore, this product is not suitable for decorative purposes. Mix Maleki-SBS 860 only with the specified amount of water. Do not use on substrates with different surface temperatures (for example hot water and heating pipes or direct sunlight). Do not apply Maleki-SBS 860 on frozen substrates or in freezing conditions and do not apply during rain. Use structural measures such as expansion joints to prevent formation of cracks in buildings. An appropriate flexible or permanently elastic sealant must be used to waterproof joints. The absorbency of the substrate and the tile edges must be uniform. The tile surface must be free of all cement and gypsum residues. Do not mix with cement-based products.

Maleki-SBS 860 is a special-purpose product which requires previous work instructions before first use. The use of Maleki-SBS 860 is permitted up to an acid concentration of 5%.

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

Technical data sheet

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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.



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16

No. 1520 EN

EN 1504-3:2005

Concrete protection and repair product for
statically non-relevant restoration.

EN 1504-3: ZA.1a

Compressive strength	Class R2
Chloride ion content	≤ 0,05 %
Adhesion	≥ 0,8 MPa
Impaired expansion	≥ 0,8 MPa
Carbonization resistance	NPD
Elastic modulus	NPD
Fire behavior	A1