

Technical Information Sheet

Funcosil® Priming Mortar

Art.No. 0643

Ready-to-use, factory-mixed dry mortar.
Binders and aggregates on a pure cementitious base.

Property profile:

Funcosil Priming Mortar is a ready-to-use, factory-mixed dry mortar that is made of pure, cementitious raw materials (binders and aggregates). Physical characteristics correspond to the requirement for the lowest possible inherent stress and mechanical characteristics especially coordinated to the natural stone substrate.

When used properly, very good adhesion to the substrate is achieved.

Characteristic data of the product in the packaged state:

Density: (apparent specific gravity) approx. 1.8 kg/litre
Colour: grey

Mechanical strength values (in compliance with DIN 1164)

	7 days	28 days
Flexural/tensile strength (N/mm ²):	approx. 4	approx. 5
Compressive strength (N/mm ²):	approx. 20	approx. 28

Shrinkage deformation (according to DIN 52450)

Shrinkage shortening over time in mm/m			
3 days	7 days	14 days	28 days
approx. -0.2	approx. -0.4	approx. -0.6	approx. -0.7

E-modulus in conformity with DIN 1048

E = approx. 18×10^3 N/mm²

Range of use:

Funcosil Priming Mortar is suitable for internal core reconstruction underneath Funcosil Restoration Mortar, especially for deeper defective areas that require multi-layered reconstruction.

Directions:

The substrate to be reconstructed should be thoroughly cleaned. Dependent on the type of soiling, use Alkutex Soil Dissolvent or Alkutex Facade Cleaner Paste.

Weathered areas should be scabbled out at an angle down to sound substrate. To improve the adhesional/tensile strength of the substrate, always strengthen first with Funcosil Stone Strengthener OH. In the case of historically valuable, ornamental building elements and sculptures, do not scabble out deeply. These can be preserved by careful removal of pollutant crusts (scrape off) and by generously applying Funcosil Stone Strengthener OH several times to strengthen.

As a rule, damaged areas should be scabbled out deep enough so that a mortar layer at least 2 cm thick can be applied. Mortar applications should never taper off to "zero".

On strongly cantilevered elements such as cornices, etc., supporting reinforcement should be carried out. Use only stainless steel or plastic star dowels for reinforcing.

When applying Priming Mortar or Restoration Mortar, do not apply layers thicker than 2-3 cm at one time.

After blowing out with compressed air, prewet the substrate thoroughly and brush on a slurry (Priming Mortar/water in a ratio of 3:1) in a layer thickness of 2 mm. Core reconstruction with the Priming Mortar follows in a plastic, earth-moist consistency (approx. 750 ml of water to 5 kg Priming Mortar), worked in layer thicknesses of 2 cm. Waiting time between applications: 24 hours.

Technical notes:

Maturing time: approx. 2 minutes, then mix again. If necessary, add max. 2-3 % of water to get a consistence that can be applied.

Check the setting process, especially in warm weather and strong wind. In the cases described, the reconstructed surfaces are to be wet at least twice a day each of the following 4 days. Afterwards, after initial setting, the areas that have been reconstructed with Priming Mortar are scraped out at least 5 mm below the final surface level and, after thorough prewetting, a final layer of Restoration Mortar is applied. For more information, see the directions in the Technical

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Information sheet for Funcosil Restoration Mortar as well as the following steps for stone replacement measures.

Working procedure for stone replacement measures

1. Mark a square around the defective area with a hard pencil or diamond drawing point.
2. Cut or chisel out the marked, defective area at an angle, at least 1 cm deep so that there are no edges tapering off to zero.
3. Scabble out all loose and friable parts within the whole marked area.

Working procedure

For deep defective areas on strongly cantilevered building elements:

4. Drill holes, approx. 8 mm, in areas where damage is deeper than 3 cm, also on the underside and on weather grooves of cornices and other projections, in square intervals of 5-8 cm.
5. Insert plastic dowels into the drill holes which have been blown out.
6. Set corrosion resistant screws into the dowels. Distance from the substrate should be approx. 1-1.5 cm (brass screws are not sufficiently corrosion proof. Screws made of V 4A material, size 5/50 or 5/60 are recommended).

If star dowels are used, steps 5 and 6 do not apply.

7. Clean the dusty substrate, preferably with a high pressure jet.
8. Wet the damaged areas.
9. Precoat immediately with a thin-plastic slurry of Priming Mortar.
10. Apply thick-plastic Priming Mortar to the freshly slurried areas, however, do not apply more than a 2 cm layer at one time within 24 hours. Observe joints.
11. Dependent on weather conditions, approx. 2-6 hours after application and initial setting, scrape the primed surface or profile off until it is at least 3-5 mm below the final surface level.
12. After 24 hours, wet the primed areas.
13. Slurry with thin Restoration Mortar.
14. Apply thick plastic Restoration Mortar (as described for Priming Mortar, steps 9-11), but this time to approx. 1-2 mm above the final surface level. Observe joints.
15. Compact the initially set Restoration Mortar with a foam rubber float. Do not use metal trowels!
16. Carefully level the initially set mortar, pressing down in edge areas.
17. Adjust levelling or scraping tools to match the type of finish on adjoining areas.

18. Dependent on weather conditions, after initial setting, stone dress repaired areas to match the surroundings, e.g. with a segmented tooth saw blade for dove cutting, etc so that its appearance matches that of the original sandstone.
19. Brush off the restored area carefully with a soft broom or long-haired brush.
20. Clean excess slurry from border areas between the natural stone and the mortar restoration by washing or sandblasting with a special gun.
21. Wet the restored areas several times during the following 14 days.
22. 3-4 weeks after the stone replacement measures have been carried out, a general strengthening of all the weathered natural stone with Funcosil Stone Strengthener OH should be carried out, including the areas that have been restored with Funcosil Priming and Restoration Mortar.
23. Adjust the colour of the restored areas with Funcosil LA Silicone Paint.
24. Carry out long-term protection against driving rain and atmospheric pollutants dissolved in water with Funcosil impregnation agents.

Tools and cleaning:

Brush, trowel, filling knife, foam rubber float, scraper, stone mason's tools, high pressure jet, compressor, etc.
Clean tools and equipment with water while the material is still fresh.

Packaging, application rate and storing:

Packaging: 30 kg paper bags

Application rate: Approx. 2.0 kg for 1.0 litre cavity volume.

Shelf-life: Approx. 12 months stored dry in closed bags on wooden grids protected against moisture.

Safety, ecology, disposal:

Further information concerning safety during transport, storage and handling as well as for disposal is found in the latest Safety Data Sheet.

The statements above are compiled from our field of production and according to the latest technological developments and application techniques. Since application and working are beyond our control, no liability of the producer can be derived from the contents of this information sheet.

Any statements made beyond the contents of this information must be confirmed in writing by the producer.

In all cases, our general conditions of sale are valid.

With the publication of this Technical Information Sheet all previous editions are no longer valid.