

ombran MHP-SP

Highly sulphate-resistant mortar
for coating and re-profiling structures in sewerage systems



PRODUCT PROPERTIES

- Cement-bounded, polymer-modified, one-component, C₃A-free binding agent
- Spray and spinning application (partial hand application)
- Impermeable to water, resistant to freeze and de-icing salt attacks
- Can withstand heavy mechanical loads, fibre-reinforced
- Resistant to very severe sulphate and chloride attack
- Early resistance to water impact
- Suitable as a coating system in public sewerage systems, durable down to pH ≥ 3.5 : resistant to impacts concrete is exposed in exposition class XA3 according to EN 206
- WW-coating mortar (B1-XWW3) acc. to DIN 19573
- WW-jointing mortar (XWW3)
- WW repair mortar (B2-XWW3, no exposure to weathering) acc. to DIN 19573
- Class R3 according to EN 1504-3 (structural relevant)
- General building supervision approval

AREAS OF APPLICATION

- Coating of concrete and masonry manholes, sewers as well as reservoirs
- Re-profiling of breakouts and defects in manholes, sewers and reservoirs
- Application by wet-spray and spinning technology
- REACH-assessed exposure scenarios: periodical inhalation, application, long-term water contact
- Suitable concerning impacts concrete is exposed to in exposition class XA3, XS3 and XD3 according to EN 1504-3

APPLICATION ADVICE

Substrate Preparation: See the data sheet "General Application Advice for manhole and sewer repair mortars".

Pre-wetting / Bond Coat: See data sheet "General Application Advice for manhole and sewer repair mortars". Only for hand application ombran HB is used as bond coat, the details of the technical data sheet "ombran HB" must be observed.

Mixing: The mineral re-profiling / coating consists of the dry mortar ombran MHP-SP and water. The material can be mixed with slowly running double stirrer or pug mill mixer (pan mixer), before it will be supplied to the spray or spinning application with a screw pump through a hose (inner diameter at least 35 mm). The major part of the water is poured, the dry mortar is added and mixed until homogeneous and lump-free. The remaining water is used to adjust the consistency as necessary. Mixing by hand and mixing of partial quantities is not allowed. Mixing takes at least 3 minutes (depends on mixing technology). For the usage of the ombran MHP-SP with continuous mixers please request special advice.

Mixing Ratio: See "Technical values & product characteristics" table. Since this material is cement-bound the quantity of water may vary slightly. Also the used mixing and pump technique can have influence on the quantity of water.

Application: ombran MHP-SP can be applied by spraying or spinning technology. Also a hand application is possible. It can be applied in one or more layers where a thick coating is required. A screw pump with adjustable discharge flow is to be used for spray and spinning application. Please request our assistance and equipment planner data sheet.

Curing: During post-treatment, ombran MHP-SP must be protected from excessive water loss for at least 72 h (chem. curing agents e.g. MC-RIM PROTECT C, jute sacking, foil etc.). Particular attention must be given to the relevant effects of temperature and wind. If further layers of the material or subsequent coating systems are to be applied, the use of separating curing agents must be avoided or the surface must be intensively prepared by blasting to remove remaining curing layers.

TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Mixing ratio	mass fractions	25 : 3,2 -3,5	powder component : water
Working time	minutes	approx. 60	at 20°C
Application conditions	°C	≥ 5 ≤ 30	air, substrate and material temperatures
Consumption (flat) ¹⁾	kg/m ² /mm	1.9	factory-dried mortar
Layer thickness	mm		
		≥ 6	as a reprofiling mortar
		≥ 10	per layer as coating mortar
		≤ 25	per layer as coating mortar
		50	maximum total layer thickness
Water resistant after	hours	approx. 3	at 20°C
Maximum grain size	mm	approx. 2	
Fresh mortar bulk density	kg/dm ³	approx. 2.2	
Compressive strength (strength development)	N/mm ²		
24 h		≥ 20	
7 d		≥ 40	
28 d		≥ 45	
Flexural strength (strength development)	N/mm ²		
24 h		≥ 4	
7 d		≥ 5	
28 d		≥ 7	
E-modulus (static)	N/mm ²	ap- prox. 19,200	after 28 days

All technical values are laboratory results determined at 21°C ±2°C and 50% relative humidity.

1) object specific

equipment cleaning agent	water
colour shade	grey
delivery form	25 kg bag
Storage	Can be stored in original sealed packages at temperatures between 5°C and 25°C in dry conditions for at least 12 months.
packaging disposal	Make sure single-use containers are completely empty. Ensure compliance with our information leaflet "Return of Emptied Transportation and Sale Packaging". We will be glad to send you this on request.

Safety instructions

Please note the safety information and advice given on the packaging labels and safety data sheets. GISCODE : ZP1

Note: The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by MC's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2100004361]