ombran MHP

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

BE SURE. BUILD SURE.

PRODUCT PROPERTIES

- Cement-bounded, polymer-modified, one-component, C_3A-free binding agent
- Impermeable to water
- Resistant to freeze and deicing salt attacks as well as strong temperature changes
- Can withstand heavy mechanical loads, fibre-reinforced
- Resistant to very severe sulphate attack
- Rapidly capable of being exposed to water
- Suitable as a coating system in public sewerage systems, durable down to pH ≥ 3.5: resistant to impacts concrete is exposed to in exposition class XA3 according to EN 206
- WW-coating mortar (B1-XWW3) acc. to DIN 19573
- WW-jointing mortar (XWW3) acc. to DIN 19573
- 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
- Surface levelling in masonry manholes
- Jointing of masonry and tiles / panels in waste water structures
- Forming of fillets
- REACH-assessed exposure scenarios: periodical inhalation, application, long-term water contact

APPLICATION ADVICE

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

Pre-wetting / Bonding Agent: See data sheet “General Application Advice for manhole and sewer repair mortars”. ombran HB must be used as the bonding agent. The details of the technical data sheet of ombran HB must be observed.

Mixing: The mineral re-profiling / coating consists of ready-mixed ombran MHP and water. Pour out the major part of the water, scatter the ready-mix mortar on it and mix to a uniform, lump-free consistency. The remaining water is used to adjust the consistency as necessary. Pug mill mixers and slow-running double stirrers are suitable for mixing the mortar. Mixing by hand and mixing of partial quantities is not allowed. Mixing takes at least 3 minutes.

Mixing Ratio: About 3.4 to 3.6 litres of water are needed for a 25 kg bag of ombran MHP. Since ombran MHP is cement-bound, the amount of water needed may vary.

Application: ombran MHP must be applied “fresh-in-fresh” to the bonding agent using suitable tools (e.g. steel smoothing tool, trowel), compacted and abraded. Where a thick coating is required it may be necessary to apply multiple layers. If afterwards an additional protection material will be applied, roughen the surface of top mortar layer with suitable means (e.g. structuring with a coconut brush or sweeping).

Curing: During post-treatment, ombran MHP must be protected from excessive water loss for at least 72 hours (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.

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TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Mixing ratio	mass fractions	25 : 3.4 - 3.6	powder component : water
Working time	minutes	approx. 30	at 20° C
Application conditions	°C	≥ 5 ≤ 30	air, substrate and material temperatures
Consumption (flat)[1)]	kg/m²/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/dm³	approx. 2.2	
Compressive strength (strength development)	N/mm²		
24 h		≥ 10	
7 d		≥ 35	
28 d		≥ 40	
Flexural strength (strength development)	N/mm²		
24 h		≥ 4	
7 d		≥ 5	
28 d		≥ 6	
E-modulus (static)	N/mm²	approx. 18,500	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	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.

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

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