

# ombran MHP

## Plastics-modified, highly sulphate-resistant mortar for coating and re-profiling structures in sewerage systems

### Product Properties

- Cement-bound, onemponent
- Tricalcium aluminate-free binding agent (C<sub>3</sub>A-free)
- impermeable to water, frost-resistant
- allows diffusion of water vapour
- can withstand heavy mechanical loads
- resistant to very severe sulphate attack
- rapidly capable of being exposed to water
- suitable as a coating system in public sewerage systems up to pH 3.5

### Areas of Application

- Coating of concrete and masonry shafts and sewers
- Re-profiling of breakouts and defects in shafts and sewers
- Surface levelling in masonry shafts
- Setting of shaft rings
- Forming of fillets

### Application

#### Substrate Preparation

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

#### Pre-wetting/Bonding Agent

See the data sheet "General Application Advice for manhole and sewer repair mortars". ombran HB must be used as the bonding agent. The instructions given in the technical data sheet for ombran HB must be observed.

#### Mixing

The mineral re-profiling/coating is made up using 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 rest of the 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 the mixing of partial quantities is not allowed. The mixing time is three minutes.

#### Mixing Ratio

See the "Technical Data" table. About 3.4 to 3.6 litres of water are needed for a 25 kg sack of

ombran MHP. Since ombran MHP is cement-bound, the amount of water needed may vary.

#### Application

ombran MHP must be applied "fresh on fresh" to the binding agent using suitable tools (eg steel smoothing tool, trowel), compacted and rubbed down. Where a thick coating is required it may be necessary to apply multiple coats.

#### Curing

During post-treatment, ombran MHP must be protected from excessive water loss for at least 72 hours (chemical post-treatment, jute sacking, foil, etc.). Particular attention must be given to the relevant effects of temperature and wind. If further coats or other products are to be applied, post-treatment agents with a separating effect must not be used.

#### Safety Advice

Observe the hazard notices and safety advice on the labels and safety data sheets.



## Technical Data for ombran MHP

Characteristic	Unit	Value*	Comments
Mixing Ratio	p.b.w.	25:3.4-3.6	ombran MHP : water
Application time	minutes	approx. 30	
Temperature of use	°C	+5 to +30	air and substrate temperature
Coverage**	kg/m <sup>2</sup> /mm	approx. 1.9	ready-mix mortar
Layer thickness	mm	6 – 25 50	per work step max. total layer thickness
Withstands water after:	hours	approx. 3	at +20 °C
Maximum grain size	mm	2	
Fresh mortar raw density	kg/l	approx. 2.16	
Development of compressive strength	N/mm <sup>2</sup>	1.5 13.0 25.0	after 2 h after 24 h after 7 d
Development of bending tensile strength	N/mm <sup>2</sup>	0.2 3.0 4.5	after 2 h after 24 h after 7 d

## Product Characteristics for ombran MHP

Colour	grey
Form of Delivery	25 kg bag
Equipment Cleaner	water
Storage	If tightly sealed, the original packs can be stored for at least one year at temperatures between +5 °C and +25 °C in dry conditions. The same requirements apply to transport.
Pack Disposal	Make sure the pack is completely empty. Refer to our information sheet on the packaging order "The MC disposal concept for completely empty transport and sales packaging". We would be pleased to send you this on request.

\* Unless otherwise stated, all technical data were determined at +23 °C und 50% relative air humidity.

\*\*Quantities used depend on the object and on the roughness of the substrate as well as on the storage and working temperatures and the temperature of the substrate. We recommend carrying out experiments beforehand to determine object-specific quantities.

**Note:** The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are only binding if given in written form. The accepted engineering rules must be observed at all times.

Edition 12/08. Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.