

ombran flex

Permanent flexible coating for manhole tapers in waste water areas

Product Properties

- Two-component, polyurethane resin filler
- Permanent flexible, crack bridging
- Watertight, osmose consistent
- Good resistance against acid and alkaline solutions, resistant against biogenic sulphuric acid corrosion
- Processible with trowel and leveler and therewith usable in vertical and overhead areas
- Usage on dry mineral based substrate without primer possible
- Good adhesion to non-mineral substrates, brick, pottery, metal and ombran hybrid-silicate coating
- Adhesion to CIPP-liner, PVC and PE-HD possible

Areas of Application

- Rehabilitation of tapers in case of dynamic loads
- Coating of shaft rings and taper areas of manholes
- Sealing material for manhole frame joints
- Integration / annular gap sealing of tube entrances and pipe penetrations in accessible structures
- Sealing of cracks, clefts and joint sections in accessible sewage pipes

Application

Substrate preparation

After substrate preparation with suitable procedures the substrate must be clean and free from all loose particles, dust, oil or grease and other materials that would prevent a good bond. The substrate can be dry or moist. For further information see "General Application Advice for flexible coating for manhole tapers".

Mixing

Ombran flex is made up of a base (comp. A) and a hardener component (comp. B), which are delivered in barrels which are quantitatively concerted. The two components must be carefully mixed to a uniform consistency using a slow-running mechanical stirrer. Mixing time takes approx. 5 min. Mixing by hand or mixing of partial quantities is not allowed.

Application

Ombran flex can be applied with a trowel, leveler or scraper. ombran flex has to be applied free of voids and blisters on the surface or in the joints. First a thin basic coat (scratch coat) must be applied, which will be over coated immediately „fresh-on-fresh“ and formed in one process up to a layer thickness of 4 mm. For usage of ombran flex as a joint sealant please observe "General Application Advice for flexible coating for manhole

tapers". In case of application to moist or non-mineral substrates, by application as joint sealant as well as in case of chemical, thermic exposure or / and exposure to UV-light the primer MC-DUR 1177 WV-A must be used first. Apply a thin layer of MC-DUR 1177 WV-A in a simple cross-coat onto the prepared substrate. The primer can be over coated after a waiting time of approx. 2 h (depends on the surrounding). Smooth the surface of ombran flex subsequently to the application and before the end of the pot life.

Cleaning of equipment

Within the pot life of ombran flex, tools and mixers can be cleaned with MC-Cleaner U. Once the material has set, it can only be removed mechanically.

Other Advices

Areas stressed by mechanical loads are subjected to an ordinary wear. The stated times are shortened by high temperatures and increased by low temperatures. A 10 K temperature change doubles or halves the stated times. ombran flex is not suitable for permanent weather exposed surfaces.

Safety advice

Observe the hazard notices and safety advice on the labels and safety data sheets.
GISCODE: PU40

Technical data for ombran flex

Characteristic	Unit	Value*	Comments
Mixing ratio	p.b.v.	10 : 1	component A : component B
Specific gravity	g/cm ³	approx. 1.72 approx. 1.22 approx. 1.68	component A component B mixture
Application conditions	°C K %	+ 5 to + 30 3 max. 80	material-, air- and substrate temperature dew point distance (without primer) rel. air humidity (without primer)
Viscosity	Pa·s mPa·s Pa·s	approx. 1,300 approx. 635 approx. 700	component A component B Mixture
Application time (barrel)	min	approx. 25 - 40	depending on temperature
Water resistant after	h	approx. 2 h approx. 24 h	light over raining flooding
Layer thickness	mm	approx. 4	above grain tips
Coverage**	l/m ²	approx. 4.0	at 4 mm Layer thickness
Max. joint width	mm	approx. 30	
Pull of strengths (concrete)	MPa	≥ 0.7	after 24 h (specimen saturated with water and damp surface)
Shore A hardness		approx. 60	after 7 d
Crack bridging	Mm	< 4	DIN EN 1062-7, with primer
Can take full chemical and mechanical load after	d	7	

Product characteristics for ombran flex

Cleaning Agent	MC-Reinigungsmittel U (MC-Cleaner U)
Colour	black
Form of Delivery	4 x 3,3 l twin-packs per carton (component A: 3,0 l / component B: 0,3 l)
Storage	If tightly sealed, the original packs can be stored for at least 1 year at temperatures between + 5 °C and + 25 °C in dry conditions. The requirements apply to transport.
Pack Disposal	Make sure the pack is completely empty

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

** Quantities used depend on the roughness 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 04/19. 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.