

PRODUCT PROPERTIES

- Two-component polyurethane resin filler
- Permanent flexible, highly crack bridging
- Watertight, osmosis-resistant
- Good resistance against acid and alkaline solutions, resistant against biogenic sulphuric acid corrosion
- Processible with trowel and leveler and also in vertical and overhead areas
- Application 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 possible

AREAS OF APPLICATION

- Rehabilitation of tapers in case of dynamic loads
- Coating of manhole rings and taper areas of manholes
- Sealing material for manhole frame joints
- Connection/ annular gap sealing of laterals and pipe penetrations in accessible wastewater structures
- Sealing of cracks, gaps and joint sections in accessible sewage pipes

APPLICATION ADVICE

Substrate preparation: After preparation by suitable methods, the substrate must be free of all loose particles, dust, oil or grease and all other substances with a separating effect. Oil or grease contaminated substrates must be deoiled / degreased using MC-Duroprop U. The surface tensile strength of the substrate must comply with the relevant technical regulations. The substrate may be dry or matt damp before coating.

Reprofiling / Local repair: In advance leakages and infiltration must be sealed with suitable products (mineral based fast-setting mortar or reaction resin). Highly structured surfaces in the area of the taper must be levelled before application of ombran flex. Dependent on the failure mode products of ombran MHP-family or ombran R can be used therefore. A coating of the products mentioned before with ombran flex may only be carried out after clear superficial hardening (depends on air- and substrate temperature). The usage of the primer MC-DUR 1177 WV-A is possible and necessary under special conditions.

Mixing: ombran flex is made up of a base (comp. A) and a hardener component (comp. B), which are delivered in cans which are quantitatively concerted. It is recommended to preheat ombran flex up to approx. +20°C, to ensure easy handling. Mixing can be done in the can of the base component. Shake ombran flex component B (hardener component) before usage, pour one half of it into the can of the base component and stir slightly. Subsequently the residual amount of component B (hardener component) is added. Both components must be carefully mixed to a uniform consistency by using a slow running mechanical mixer. Single-shaft mortar mixers or appropriate mixing equipment / power drill (min. 400 W) with spiral fixture are suitable for mixing. Power drills with basket fixture are not suitable for mixing. Immerse the mixers completely into the material to minimize air bubbles caused by mixing. Mixing time takes approx. 5 min. Mixing by hand or mixing of partial quantities is not allowed.

Application conditions: ombran flex is to be used at material-, air- and substrate temperatures of +5°C to +30°C. In case of working without primer a dew point distance of at least +3K must be observed. The relative air humidity must not exceed 80 %.

Application - areal: ombran flex can be applied by trowels or floats. The first work step has to be a thin scratch coat. The scratch coat is to be over coated immediately "fresh-in-fresh" and formed in one process free of holes and bubbles up to a layer thickness of 4 mm. After applying the required layer thickness the coating can be smoothed. Slightly setting material can be smoothed by manual rubbing with soapy water. Application time is - depending on ambient conditions - between 25 and 40 minutes.

Application - joint sealant: In case of using ombran flex as joint sealant special jointers have to be used. Optionally an application by piping bags is possible. The application has to be free of holes and bubbles. The closed-cell polyethylene round profile Mycoflex Fugenfüller PE has to be installed as backfill material. The joint depth is to delimitate to approx. 50 % of the width but at least to 10 mm (observe DIN 18540). Prevent three-sided adhesion by using a polyethylene strip if no backfill material can be installed.

Joints can be over worked up to a maximum width of approx. 30 mm. Please observe the data sheet „Structural joint formation“.

Connection to existing coating areas / side closing: In case of connecting ombran flex to an existing coating (adhesion required) a claw-joint of approx. 4 x 4 mm is to mill into the coating and has to be filled and overcoated with ombran flex. If the coating flows out at the flange of the construction, the flange has to be covered with ombran flex. The upper completion at the frame of the manhole cover has to be done with reasonable care. The manhole cover must not be layed into fresh ombran flex.

Usage of a primer: In case of application to moist or non-mineral substrates, application as joint sealant as well as in case of chemical, thermal exposure or / and exposure to UV-light the primer MC-DUR 1177 WV-A must be used first. All relevant information for application of the primer can be observed in the technical data sheet. In case of mixing partial quantities of the primer a scale must be used. Therefore both components of the primer have to be separately mixed up in the original barrel. After approx. 5 minutes time of mixing MC-DUR 1177 WV-A is applied thin (avoid greasy films and puddles) onto a prepared surface by using a lambskin roller or a foam rubber roller in a cross coat. It can also be brushed onto the joint flank. After an appropriate drying time of approx. 2 h (dependent on ambient temperature and relative air humidity) a change of primer colour from milky to colourless takes place. The surface will be sticky. From this point on and at the latest within the following 12 hours the primer has to be overcoated with ombran flex. Waiting time can be shortened by blowing in air or heating.

Curing / Release: ombran flex can be lightly overrained after approx. 2 h and can be completely flooded after 24 h. A leakage test must not be held before 24 h after application of ombran flex.

Cleaning of equipment: Within the pot life of ombran flex, tools and mixers can be cleaned with MC-Reinigungsmittel 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 10K temperature change doubles or halves the stated times. ombran flex is not suitable for permanent weather exposed surfaces.

TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Mixing ratio	parts by volume	10 : 1	comp. A : comp. B
Density	g/cm ³	approx. 1.72	component A
		approx. 1.22	component B
		approx. 1.68	mixture
Viscosity	Pa·s	approx. 1,300	component A
		approx. 635	component B
		approx. 700	mixture
Working time	minutes	approx. 25 - 40	temperature-dependent
Application conditions	°C	≥ 5 ≤ 30	Temperatura del aire, soporte y material
	K	3	above dew point (without primer)
	%	≤ 80	rel. humidity (without primer)
Consumption	l/m ²	approx. 4	at 4 mm layer thickness
Resilient after (mechanically)	days	7	
Resilient after (chemically)	days	7	
Layer thickness	mm	approx. 4	above grain tips
Joint width (maximum)	mm	approx. 30	
Water resistant after	hours	approx. 2	slight water contact
		approx. 24	water contact
Tensile strength (concrete)	N/mm ²		
24 h	N/mm ²	≥ 0.7	after 24 hours, test specimen water saturated with matt damp surface, primer application
Shore A hardness			
7 d		approx. 60	
Crack-bridging	mm	< 4	EN 1062-7 (primer application)

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

Equipment cleaning agent	MC-Reinigungsmittel U
Colour	black
Delivery form	4 x 3.3 l per box (component A: 3.0 l / component B: 0.3 l)
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 : PU40

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. [2400020584]