

## Safety data sheet

Unimörtel

Status: 05.01.2024 Version: 1

Highly sulphate-resistant laying, coating, repair and sealing mortar in accordance with DIN 19573 with accelerated or delayed setting behavior (BTG version)

#### **Product description:**

IPA UNIMÖRTEL is a ready-to-use dry mix consisting of cement, fire-dried quartz sand, additives and admixtures, low-shrinkage, with a short working and setting time. IPA UNIMÖRTEL has a set open time and is only mixed with water. IPA UNIMÖRTEL is a WW masonry, jointing, laying and repair mortar in accordance with DIN 19573 And classified as WW coating mortar DIN 19573 - B2 -XWW3.

#### **Examination certificate:**

- TU Munich No. T21413/05-01- MPA BAU Materialprüfungsamt für das Bauwesen, Inspection of the Water penetration depth of the sealing mortar "IPA-Unimörtel", determination of the flexural and compressive strength.
- Hygieneinstitut Gelsenkirchen: in accordance with DVGW worksheet W 347 "Hygienic requirements for Cementitious materials in the drinking water sector"
- Determination of the resistance to sulphuric acid Attack according to DIN 19573: 2016 VBE-Verein für Baustoffprüfung und -entwicklung.

#### **Areas of application:**

IPA Unimörtel is used for the reprofiling and coating of sewers, and

Manholes, for setting manhole rings (the manholes set in this way pass the tightness test

according to DIN) - for subsequent grouting of manhole rings for grouting brick and natural stone masonry and as a water-repellent sealing plaster, - for repair work as well as surface leveling and fillets.

#### Mode of action/properties:

IPA UNIMÖRTEL is easy to apply and impermeable to water.

It is fast-curing, low-shrinking, does not attack structural steel and is ready for use after just 90 minutes. (BTG 300min version) can be loaded. IPA UNIMÖRTEL has good adhesion to the substrate.

#### **Processing method Substrate:**

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The substrate must be solid and free of binding substances. If necessary, remove rust from existing reinforcing steel and coat with IPATOP MKH. The substrate must be pre-wetted with capillary saturation (surface matt damp), remove standing water.

#### **Processing:**

Mix IPA UNIMÖRTEL homogeneously with clean water using a slow-running agitator to form a workable mortar (25 kg dry mortar, 3 L water). Apply the mortar using suitable tools, compact and rub down. For larger excavations, use auxiliary formwork

use. Mortar that has already been spread must not be plasticized with water. The substrate and material temperature must not fall below +5°C during application and for 24 hours afterwards. The rules for processing cementitious building materials apply.

For surface coatings with IPA UNIMÖRTEL, IPA UNIMÖRTEL konz should be used as an adhesive slurry.

#### Machine processing:

Processing is possible with a screw pump, e.g. Mader Variojet or PFT N2V with a hose diameter of 35 mm (hose length > 20 m can also be used), compressor air output at least 5 m<sup>3</sup> / min.

## **Cleaning and disposal:**

Clean work equipment and containers with water immediately after use. Do not pour residual quantities of the mixed material into the sewage system.

#### **Occupational safety:**

Protective clothing, safety goggles and protective gloves must be worn when working. Avoid heavy dust formation! Do not smoke, drink or eat during processing! In the event of skin contact and splashes in the eyes, rinse immediately with clean water for at least 15 minutes. It is recommended to keep an eye wash bottle with a sterile solution (available in pharmacies) to rinse eyes thoroughly. Then consult an ophthalmologist immediately. Please observe the safety data sheets and the regulations of the trade associations regarding the handling of cementitious materials.

# **Technical data:**

Material basis	Cement-bound
Color	Concrete gray
Aggregate grain size	2mm



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Bulk density approx.	1.59 kd/dm <sup>3</sup>
Mixing liquid	Clean water
Mixing liquid requirement	approx. 0.12 l/kg,
	Even small changes
	the mixing liquid
	Quantities cause a
	Acceleration or
	Delay of the setting behavior.
Processing time (depending on temperature)	Normal setting: < 30
	min; delayed setting
	(BTG version) >
	40min
Material consumption	Approx. 2.0 kg/m <sup>2</sup> /mm layer thickness

## Fresh mortar characteristics

Raw density	2.09 g/cm <sup>3</sup>
Air void content	10.8 % by volume

# Solid mortar characteristics:

## **Compressive strength**

1 day	26.5 N/mm <sup>2</sup>
7 days	45.1 N/mm <sup>2</sup>
28 days	49.6 N/mm <sup>2</sup>

## Bending tensile strength

1 day	4.1 N/ mm <sup>2</sup>
7 days	7.7 N/ mm <sup>2</sup>
28 days	8.2 N/ mm <sup>2</sup>
Water penetration depth	$\leq$ 50 % of the minimum dry film thickness
Adhesive tensile strength	28 days > 2.0 N/mm2,
	Fracture surface in underground concrete
Sulphate resistance	≤ 0.8 mm/m, no visible
	Cracking
Classification according to DIN 19573 Exposure	XWW3
classes	
Delivery form	25 kg paper bag with poly liner

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Storage stability	12 months with proper
	Storage. The storage
	takes place in the unopened
	Original packaging,
	in dry rooms.
	The storage temperature
	should not exceed +5°C
	below and +30°C not
	exceed.