

Repair mortar for concrete repairs

Description

OBTEGO X-300 is a solvent-free 2-component methacrylic resin mortar with a high compressive strength and tensile strength in bending. It is characterized by very low linear shrinkage. The standard color is similar to RAL 7030 medium grey

Properties

Solvent-free 2-component methacrylic resin mortar

OBTEGO X-300(A) Powder:
Powder with quartz sand

OBTEGO X-300(B) Hardener:
Methacrylic based

Characteristics of OBTEGO X-300 in the hardened state

Property	Measuring method	Value
Density	DIN 53 479	approx. 2,15 g/cm ³
Compressive strenght	DIN EN 196	approx. 75,0 N/mm ²
Tensile strenght	DIN EN 196	approx. 20,0 N/mm ²
Module of elasticity	DIN 53 457	approx. 7000 N/mm ²
Water absorption	DIN 53 495	4 days approx. 90 mg (50x50x4 mm)
Water vapour permeability	DIN 53 122	approx. 1,05 x 10 ⁻¹¹ g/cm x hPa

Application

OBTEGO X-300 is best for repair work and backfilling for holes. Due to its high strength, the mortar is suitable also as a wear-resistant concrete coating for arising leveling and repair work for layer thicknesses of 6 – 25 mm.

Application fields are all cementitious substrates like industrial floors in logistic centers, super markets, and private areas.

The hardening time is about 1 hour at +20 °C, and hardening takes place in temperatures ranging from -10 °C to +35 °C (approx. 1 – 3 hours).

Processing

1. The surface to be treated must be solid, clean, dry, absorptive and free of efflorescence, release agents, sintered layers and other undesirable contaminants. Residual moisture must be measured before applying the product. The residual moisture must be <4 CM%, otherwise coloring differences could appear later (patchiness). No rising moisture (according to ASTM D4263 (PE-foil test)). (TRAMEX device ≤ 6% display value).

2. Use OBTEGO X-100 to prime the surface. Let it dry completely. Please refer to technical datasheet of OBTEGO X-100.

3. OBTEGO X-300 (B) Hardener is added to OBTEGO X-300 (A) Powder (see also Guideline recipe) Because of its thin, viscous consistency, the mix can be easily prepared in a short time by a high-speed agitator, while smaller quantities can be prepared manually.

4. The material mix have to be used right after mixing of OBTEGO X-300 (B) Hardener with OBTEGO X-300(A) Powder. The pot life at

normal temperatures is about 12 – 14 minutes, the hardening time about 60 – 90 minutes. The values indicated will vary according to the ambient temperature.

Guideline recipe at 20°C

Item	Compo- nente	Guideline recipe (% per weight)	Amount	Minimum thickness
1	X-300(A)	100%	15 kg	6 mm
2	X-300(B)	12,3% related to item 1	1,85 kg	

* the quantity of OBTEGO X-300(B) hardener is always related tot he quantity of OBTEGO X-300 powder

5. The finished mortar is spread and troweled evenly by a squeegee or applied using an aluminum lath and screed board. The boards should normally be made from polypropylene (PP), as these can be easily detached from the mortar after hardening by cleaning.

6. The minimum coating thickness of 6 mm must be observed. On areas, which run out towards zero, cuts must be made in the edge area. Thinner coats will result in reduced strength and hardening problems.

Note: Protect adjacent surfaces against splashes.

Productiveness

Depending on the surface absorption, the following values are supposed.

Reference values:

OBTEGO X-300: Consumption 2 kg/m² per mm layer thickness

Storage

OBTEGO X-300(A) Powder: Keep container tightly closed in a cool, well-ventilated place. approximately 6 months in original container at 10-25°C storable.

OBTEGO X-300(B) Hardener: Keep container tightly closed in a cool, well-ventilated place. Keep/Store only in original container,. approximately 6 month in original container at 10-25°C storable. Max. storage temperature 25°C, (Store class) 3 – flammable liquids.

Environmental Protection

Not empty into drains.

Water hazard class: WGK 1 (slightly hazardous to water).

Waste codes/waste designations according to EWC/AVV:

OBTEGO X-300(A) Powder:

01 04 09 Waste sand and clays. Dispose of waste according to applicable legislation.

OBTEGO X-300(B) Hardener:

07 02 08* other still bottoms and reaction residues. (*Evi-dence for disposal must be provided.) Dispose of waste according to applicable legislation.

Safety

OBTEGO X-300 is harmless to health after curing. A good ventilation should be provided during and after the processing of OB-TEGO X-300(A) Powder and OBTEGO X-300(B) Hardener, respectively. Additionally, wear protection equipment (e.g. Suitable respiratory protection apparatus: Filter P1).

Ingredients:

OBTEGO X-300(A) Powder: Diphenyl cresyl phosphate, triphenyl phosphate

OBTEGO X-300(B) Hardener: methyl methacrylate

Classification and Labelling according to Regulation (EC) No. 1272/2008 [CLP]:

OBTEGO X-300(A) Powder:



Danger

Toxic to aquatic life with long lasting effects. Contains Dibenzoylperoxid. May produce an allergic reaction.

Avoid release to the environment. Collect spillage. Dispose of contents/container to an appropriate recycling or disposal facility.

OBTEGO X-300(B) Hardener:



Danger

Highly flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. May cause respiratory irritation. Harmful to aquatic life with long lasting effects. Contains tetramethylene dimethacrylate, methyl methacrylate, N-Hydroxyethyl-N-methyl-ptoluidine. May produce an allergic reaction.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing and eye protection/face protection. IF ON SKIN: Wash with plenty of water. In case of fire: Use CO₂, Löschpulver oder Wassersprühstrahl to extinguish. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/international regulations.

GISCODE: RMA10 Coatings, containing methyilmethacrylate, irritant

Identification marking for transport:

OBTEGO X-300(A) Powder:

PU	PU marking	Transport documents
	class 9 UN3077	yes, UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S class 9 Packing group III

OBTEGO X-300(B) Hardener:

PU	PU marking	Transport documents
	class 3 UN1247	ja, UN1247 METHYL METHACRYLATE MONOMER, STABILIZED class 3 Packing group II

Packaging Unit (PU)

OBTEGO X-300(A) Powder: 15 kg bag
OBTEGO X-300 (B) Hardener: 2 liter tinplate canister

This information should only be a non-binding advice. The use of the products is based on local circumstances and on the surface itself. If there is no experience, and in cases of doubt, we recommend to try the product on a inconspicuous spot.