OBTEGO X-300 (mortar)

Technical Datasheet

Mortar for concrete repairs

Description

OBTEGO® X-300 7 mortar 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

Scopes of 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.

Characteristics of OBTEGO® X-300 mortar in hardened condition

Property	Measuring method	Approx. value
Density	DIN 53 479	2,15 g/cm3
Compressive strength	DIN EN 196	75,0 N/mm^2
Tensile strength in bending	DIN EN 196	20,0 N/mm^2
Module of elasticity	DIN 53 457	7000 N/mm^2
Water absorption 4 days	DIN 53 495	90 mg (50 • 50 • 4 mm)
Water vapour permeability	DIN 53 122	1,05 • 10-22 g/cm • h • Pa

Note:

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 < 5% 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 agilator, 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.

Guidline recipe

Item	Component	Guidline recipe (% by weight)	Amount in kg	Minimum thickness
1	OBTEGO® X-300(A) Powder	100%	15kg	6mm
2	OBTEGO® X-300 (B) Hardener	12,3% related to item 1	1,85kg	

* The quantity of OBTEGO® X-300 (B) Hardener is always related to the 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: Comsumption 2kg/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

OBTEGO® X-300(A) Powder: Waste codes/waste designations according to EWC/AVV. Waste code product: 01 04 09 Waste sand and clays,
Waste codes/waste designations according to EWC/AVV. Waste code packaging: 15 01 01 paper and cardboard packaging.
Consult the appropriate local waste disposal expert about waste disposal.

OBTEGO® X-300 (B) Hardener: Consult the appropriate local waste disposal expert about waste disposal. Do not allow to enter into surface water or drains. Waste codes/waste designations according to EWC/AVV. Waste code product: 07 02 08* other still bottoms and reaction residues. *Evidence for disposal must be provided. Waste code packaging:15 01 04 metallic packaging.

Safety:

OBTEGO® X-300 is harmless to health after curing. A good ventilation should be provided during and after the processing of OBTEGO® X-300(A) Powder and OBTEGO® X-300 (B) Hardener, respectively. Additionally wear protection equipment (e.g. Suitable respiratory protection apparatus: Filter P1). Material Safety Datasheet: www.obtego.com, is available on request.

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

Identification marking for transportation:

OBTEGO® X-300 (A) Powder:

PU	PU-marking	Transport document
a	class 9, UN 3077	yes, UN 3077, class 9, PG III; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Diphenylkresylphosphat, Triphenylphosphat)

OBTEGO® X-300 (B) Hardener:

PU	PU-marking	Transport document
a	class 3, UN 1247	yes, UN 1247, class 3; PG II METHYL METHACRYLATE MONOMER, STABILIZED, (D/E)

Ingredients:

OBTEGO® X-300 (A) Powder = Diphenylkresylphosphat, Triphenylphosphat

OBTEGO® X-300 (B) Hardener = Methyl methacrylate

OBTEGO® X-300 (A) Powder:

Toxic to aquatic life with long lasting effects.Contains dibenzoyl peroxide. May produce an allergic reaction. Avoid release to the environment. Collect spillage. Dispose of contents/container to ....

OBTEGO® X-300 (B) Hardener

Highly flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. May cause respiratory irritation. Contains tetramethylene dimethacrylate, methyl methacrylate. 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/eye protection/face protection/hearing
protection/.... IF ON SKIN: Wash with plenty of water/.... Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container to an appropriate recycling or disposal facility.

Packaging Unit (PU)

OBTEGO® X-300 (A) Powder:	15kg bag Art.Nr.: OX300-A
OBTEGO® X-300 (B) Hardener:	2liter tinplate canister Art.Nr.: OX300-B

Tyto informace byly získány na základě našich nejlepších a nejnovějších zkušeností, poznatků a vývoje. Mohou se vyvíjet a měnit a slouží pouze jako nezávazné doporučení, které je obecně platné a nelze jej použít jako základ ručení. Použití a aplikace výrobků je prováděna mimo naši kontrolu a podléhá tak Vaší odpovědnosti zkontrolovat si vhodnost použití pro daný účel na konkrétním povrchu a při lokálních podmínkách. Vždy doporučujeme si provést zkoušku / vzorek na nenápadném místě, aby byla vidět kompatibilita s daným podkladem a konečný výsledek.