

TECHNICAL DATA SHEET

MORTAR 451

Contact and anti-corrosive mortar in the concrete repair system



Areas of application

Mortar 451 is intended for executing contact layers (adhesive bridge) and to provide anti-corrosive protection in the concrete repair system. The system can be used to repair concrete, damaged reinforced concrete affected by mechanic or corrosive factors. The system is suitable for repairing such elements as: balconies, terraces, supports, piles, lintels, etc. it may be also used to execute local repairs or fill minor cavities in other concrete surfaces (e.g. ASR). Offering high carbonation resistance, the system provides sufficient protection of reinforcing steel against corrosion. It is a binding layer between the repaired concrete or reinforced concrete element and Zaprawa 456 or Gładź 460.

Properties

- High adhesion to concrete and steel
- Protects concrete and steel against corrosion
- High carbonation resistance
- Waterproof
- Frost-proof
- Facilitates the execution of further works
- Very high durability

Application procedure



Technical data

Item number	39398
Packaging	
Quantity per unit	25 kg/unit
Unit per pallet	48 unit/Pal.
Grain size	0-0,5 mm
Colour	Grey
Consumption	1,6 kg/m ² /mm
Water requirement	approx. 5,7 L/unit
Tensile adhesive strength	≥ 0,8 MPa
Compressive strength	≥ 30 MPa (28 d)
Max. application density	3 mm

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Item number	39398
Possibilities to enter	approx. 2 h
Chromium content	≤ 0,0002 %
Drying time	approx. 2 h
Processing time	60 min

Material base

- Mineral fillers
- Modifying additives
- Polymers
- Portland cement

Application conditions

The groundwork must be solid, rigid, non-deforming, cleared of dust, soot, grease, or anti-adhesive solutions, etc.

Surface

Remove corroded and carbonated concrete, clean the steel. Surface of concrete should be rough with good adhesion and demonstrate resistance to tearing off >0.8MPa. Surface of concrete must be cleaned by milling, shot blasting, etc. Reinforcing steel must be cleaned by means of the stream and rubbing method to cleanliness class of at least Sa2. Concrete cover around reinforcing steel must be removed to the place where there is no corrosion. Cleaned rods should not be left without covering them with mortar 451! Surface of concrete, before application of the bonding layer, must be moistened with water slightly (matt and humid surface). Concrete: Remove corroded and carbonated concrete, moisten with water, if necessary. Reinforcing steel: Clean to at least Sa2

Preparation

Dry mixture must be kneaded with an appropriate amount of clean, cool water, mixing manually or mechanically using a stirrer for mortars. Time of mechanical mixing should be 2-3 minutes. After mixing the first batch of mortar, you must check its consistency, it should be semi-liquid. If necessary, correct the amount of added water. Note down the

particular proportion of mixing with water so that next batches of the mortar will be prepared in the same way. Do not mix the hardened grouting mixture again.

Application procedure

Apply the mortar on the repaired surface using a broom or a brush with hard, short fibers, rubbing it into the groundwork. Apply successive layers of the system on the wet base, maintaining the wet-on-wet principle. Should the base layer dry up before applying the next layer, scrape and re-apply Zaprawa 451.

Instructions

When executing works in adverse ambient conditions, apply suitable covers to limit the effect of weather conditions. Ventilate the rooms repaired, but do not allow for drafts or excessively fast drying resulting from exposure to sunrays or heating systems.

Storage

Up to 12 months from the date of manufacture, in dry places and in intact packaging

General information

This product data sheet replaces all its previous versions. The information, included in this technical card, represents our current knowledge and practical experience. This is general information only which shall not obligate the manufacturer to take any responsibility either for workmanship or for the manner of use. For there may be

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differences and specific execution conditions. The product shall be applied in accordance with required technical knowledge and OHS rules. Avoid contact with skin and protect eyes. In case of contact with eyes, rinse them up with a large quantity of clean water and consult a doctor. It shall be recommended to use gloves, safety goggles and protective clothing. All technical data is given for the temperature of 20 degrees Celsius. These temperatures apply to air, bed and embedded material. All technical data listed in this product specification has been determined under laboratory conditions.