

Strutop® RM450

Shrinkage Controlled, Vertical and Overhead Cementitious Waterproof Repair Mortar

Uses

Strutop RM450 is suitable for hand application to repairs where light to medium load bearing is required. Typical applications would include, but not be limited to, the following:

- Vertical and overhead repairs
- General concrete and masonry repairs
- Larger scale repairs where formwork cannot be erected.

Advantages

- Extremely low permeability - gives excellent resistance to attack by aggressive elements
- Excellent bond to concrete substrate
- Shrinkage compensated
- Contains no chloride admixtures

Standards compliance

Strutop RM450 can be evaluated according to the requirements of EN 1504-3.

Description

Strutop RM450 is supplied as a ready to use blend of dry powders, which requires only the addition of clean water to produce a highly consistent cementitious repair mortar suitable for general purpose concrete and masonry repairs.

Strutop RM450 contains no metallic aggregate and is chloride free.

Strutop RM450 is formulated for sprayed or trowelled applications, in thicknesses up to 30 mm in one layer by hand application. Greater thicknesses can be achieved when spray applied.

Properties

Appearance	Gray or white Cementitious Powder
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Compressive strength (MPa) (ASTM C109/109M-02)	7 Days	35
	28 Days	45
Flexural strength (MPa) (BS6319, Part 3 : 1998)	7 Days	6
	28 Days	9
Bond Strength (MPa) (BS 1881, Part 207)	> 1.5	
Application temperature	5 - 40°C	
Water permeability (DIN 1048)	< 7 mm	
Water absorption (BS 1881, Part 121)	< 2%	

Instructions for use

Preparation:

It is essential that the substrate to be repaired is sound, clean and free of all contamination.

The damaged areas of concrete to be removed must be clearly identified. The Perimeter of the area should be saw cut to a depth of 10 mm and the edges cut as neatly as possible keeping the sides square.

Feather-edging is not permitted and a minimum thickness of 10 mm must be maintained over the whole area. The substrate should be prepared to provide a rough surface having at least 5 mm amplitude at 20 mm frequency.

If unsound or oil contaminated concrete is found to extend beyond the pre-marked area, consult the engineer in charge. Subject to approval cut back to clean sound concrete.

If reinforcement is corroded, ensure that the back of the steel has been exposed. Reinforcement should have all rust removed by the use of power tools, abrasive blasting (wet or dry) or wire brushing.

Water Saturation:

Thoroughly saturate the surface of the concrete to

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provide a saturated surface dry condition. Poor quality concrete may require soaking for a significant length of time. Any surface water should be removed using an oil free compressed air-jet.

Mixing:

Strutop RM450 should be mixed mechanically with a Heavy Duty, slow speed drill or a forced action mixer fitted.

Add 3 liters of water into a suitably sized mixing vessel for full bag mixing. Do not use part-bags. It is suggested that the temperature of the water should not exceed 20°C, so that the temperature of the final mixed material is not greater than 30°C.

With the mixer in action, add one full bag of Strutop RM450 and mix for 3 - 5 minutes, until the mix becomes fully homogeneous. (Water levels may be adjusted to allow good spray techniques between 3.5 & 4.5 liters per bag)

Application:

After mixing, Strutop RM450 can be sprayed or trowel applied. When applying by hand, Strutop RM450 must be forced tightly into the substrate to ensure intimate contact with the pre-wetted substrate.

Leveling and initial finishing should be carried using a wooden or plastic float. Final finishing should be carried out using a steel float.

When the material has stiffened to the point where finger pressure lightly marks the surface, a final firm troweling should be given using a steel float.

Curing:

Strutop RM450 demands good curing. Particular care is required in hot/windy conditions. Curing is to be commenced immediately either by applying a single coat of Strubond® Acro7 or by covering the work with plastic sheet fixed over wet hessian and taped at all edges.

Cleaning:

Strutop RM450 should be removed from tools and equipment with clean water immediately after use.

Packaging

Strutop RM450 is available in 25 kg bags.

Storage

Strutop RM450 has a minimum shelf life of 12 months at 20°C if kept in a dry store in the original, unopened packs. The shelf life will be reduced at higher ambient temperatures.

Precautions**Health and safety:**

Strutop RM450 is alkaline and should not come into contact with skin and eyes. Avoid inhalation of dust during mixing. Gloves, goggles and dust mask should be worn. If contact with skin occurs, wash with water. Splashes to eyes should be washed immediately with plenty of clean water and medical advice sought.

Fire:

Strutop RM450 is non-flammable.

