

Estopatch ST

Polymer Modified Structural Repair Mortar

Description

Estopatch ST is a pre-pack, single component structural repair material, which needs only the addition of water on site.

Estopatch ST has low permeability property thus provides optimum protection to steel reinforcement from chloride attack.

The **Estopatch ST** formulation plus Estobond Acryl bonding agent ensure intimate contact with parent concrete.

Its shrinkage compensated property enables it to be used for large and small area application.

Estopatch ST has been tested by SIRIM BHD in accordance to ASTM C942:1999, on Compressive Strength Test, BS 6920 : Part 1: 2000, on the Suitability of non-metallic product for use in contact with water intended for human consumption, and complied with the specification in this data sheet.

Uses

Estopatch ST is supplied as a grey powder to which water is added on site. It contains blended non-shrink cements, graded sands and chemical additives which provide a mortar with the superior qualities required for structural repair.

Advantages

Estopatch ST is specially design for the following applications:-

- Structural patch repair.
- High tensile and flexural strengths
- Anti-carbonation
- Anti-chloride
- Low water permeability

Standards Compliance

- **BS 6319**
- **BS 5075**
- **ASTM C942 : 1999**
- **BS 6920 : Part 1 : 2000**

Physical Properties

Compressive Strength (N/mm ²) ASTM C942:1999 1 day 28 days	25 53
Flexural Strength (N/mm ²) 28 days	9
Tensile Strength (N/mm ²) 28 days	3
Slant Shear bond (N/mm ²) BS 6319 28 days	23
Fresh Weight Density, kg/m ³	2000 – 2300
Setting Time BS 5075 at 27°C Initial set Final set	3 hrs 4 hrs
Suitability of non-metallic product for use in contact with water intended for human consumption. BS 6920 : Part 1 : 2000	Complied

* Compressive, Flexural & Tensile Strength are tested at water powder ratio of 0.11

Application Instructions

Surface Preparation

Substrate shall be thoroughly clean, free of laitance, oil, dust, grease, plaster, paint, corrosion and any other deleterious substances. Smooth surfaces should be mechanically roughened by scrubbing or needle gun to form a good mechanical key. All reinforcing steel must be grit blasted to a profile of SA 2 ½ prior to the application of recommended primer.

Edges of the areas for repair must be saw cut to 5mm and blow out all loose dust with dry, oil free compressed air.

Priming

All surfaces must be primed prior repair. Reinforcing steel must be primed with galvanized protective coating or epoxy system which will prevent further corrosion.

All concrete surfaces should be thoroughly soaked but leaving no surface water.

Concrete surface must be primed with Estobond Acryl bonding agent which is scrubbed onto the surface of the concrete. It will dry in approximately one hour. **Estopatch ST** should be applied when the Estobond Acryl is still tacky.

If the Estobond Acryl is too wet, build up may be reduced due to slippage in vertical situation. If Estobond Acryl is left to dry for more than 8 hours at 20 °C, a fresh coat shall be applied.

Mixing

Ensure that **Estopatch ST** is thoroughly mixed prior to use. It is essential that quantities of one bag or more are mixed in a forced action pan mixer or with a slow speed drill (500rpm) fitted with a spiral paddle. For normal applications 2.5 - 3.0 litres of water should be added to 25 kg bag.

Application

For application to all surfaces, **Estopatch ST** is applied with wood float to ensure positive contact with the primed substrate and initial application should be with tamping or compacting action.

Finishing can be wood float, steel trowel or sponge depending on the requirement.

The minimum layer thickness of **Estopatch ST** is 5mm and it can build up to 20mm - 25mm on vertical surfaces.

Curing

Estopatch ST is a cementitious repair mortar. It must be cured immediately after finishing in accordance with good concrete practice. Estocure curing compound is recommended for this usage.

Over Coating

Over coating can be applied to a repair area approximately 3-4 hours after application of **Estopatch ST**. Protective or decorative coatings can be applied after 7 days.

Cleaning

Estopatch ST should be removed from tools with clean water immediately after use. Cured material can only be removed mechanically.

Packing & Size

Estopatch ST	25 kg bag
Estobond Acryl	Refer data sheet

Yield

Estopatch ST	12 litre per bag depending on water addition
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Coverage

Estopatch ST	1.2 m ² at 10mm thick
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Technical Support

Denka offers a comprehensive range of high performance, high quality of repair product for both new and existing concrete surfaces. In addition, the company offers a technical support package to specifiers, end-users and contractors, as well as on-site technical assistance.

Storage

Estopatch ST has a shelf life of 12 months if maintained in dry storage conditions in unopened bags. This may be reduced if store in location of high humidity.

Precaution

Estopatch ST contains cement powder, which might be harmful to sensitive skin. In case of contact with eyes, rinse with water immediately and seek medical advice.

Additional Information

Denka Construction Solutions Malaysia Sdn Bhd and offers a wide range of complementary products which includes waterstops, waterproofing products, grouts, anchors, specialized flooring products. In addition, a wide range of products formulated for repair and refurbishment of spalled concrete are available.

Denka Construction Solutions Malaysia Sdn Bhd
(Formerly known as Estop Sdn Bhd)

No. 18, Jalan Utas 15/7, Seksyen 15,
40200 Shah Alam, Selangor Darul Ehsan, Malaysia
Tel: +60 3 5510 8810 Fax: +60 3 5518 8202
www.denka-cs.com

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