

Comtech Crete ST55

Polymer modified fiber reinforced cementitious structural repair mortar.

Description:

Comtech Crete ST55 is a high strength structural polymer modified repair mortar reinforced with polypropylene fibers. It is a mixture of ordinary Portland cement with non shrinking additives, polymers and fillers for repairing of all concrete structural elements , beams, columns and Slabs which are subjected to dynamic loads and traffic.

Primary uses:

- Specially formulated for columns, slabs and for repair of heavy structural concrete damages.
- Repair of concrete in highly corrosive environments such as marine structures, sea walls etc.

Advantages:

- High ultimate strength.
- Shrinkage compensated.
- Suitable for high build applications.
- Suitable for use in marine and industrial areas.
- Prevents the corrosion of steel reinforcement in concrete.
- Can be applied by trowel, pump or spray.

Yield:

One 25kg bag of **Comtech Crete ST55** will yield 13Ltr of mortar after mixing with water.

Typical properties:

Color	Grey
Density	2200kg/m ³
Toxicity	Non toxic
Application life	30 minutes
Compressive strength (ASTM C 109)	>30 N/mm ² @1 day >55 N/mm ² @3 day >65 N/mm ² @7 day >75 N/mm ² @28 day
Flexural strength	>7 N/mm ² @28 day
Adhesion strength	>1.5 N/mm ² @28 day
Application thickness:	Min : 10mm/Layer Max (Vertical):50mm/Layer Max(Overhead):20mm/Layer
Application temp,	5-45 (°C)

Method of use:

Surface preparation

The surface of the concrete to be repaired should be sound, clean and uncontaminated. The decayed or damaged area should be saw cut, keeping the sides of the area as square as possible. Loose materials must be removed carefully using suitable means such as sharp tools or chipping hammer. If the reinforcement is corroded make sure that the back of the steel is completely exposed. then clean the steel to bright metal condition.

Priming

Saturate the concrete surface with clean potable water prior to the application of the repair mortar.

However, ensure that the surface is free of standing water prior to the application of the repair mortar.

For better performance prime the concrete substrate with Comtech Bond SBR at coverage of 2-3m²/Ltr.

Mixing

Comtech Crete ST55 shall be mixed with 3.5-4.5Ltr of water for 25kg bag.

Pour the required quantity of water in a separate mixing container.

Slowly add the powder to the water and mix continuously with a mortar paddle mixer fitted to a slow speed drill (300/400 rpm) till a homogenous and lump free consistency is achieved.

Placing

Application can be done with trowel or a rubber hand glove to paste the material in place.

Comtech Crete ST55 can be applied to desired thicknesses in layers on vertical and overhead surfaces. High build application can be achieved by using a formwork. While applying multiple layers, the previous layer should be crosshatched and allowed to set before applying the next coat.

Comtech Crete ST55 can be applied to a thickness of 50mm in one single application if the ambient weather conditions are normal.

Curing

Due to the presence of rapid drying polymers in the repair mortar, the applied mortar has to be protected from hot and drying winds. Curing can be done either by the use of curing compound or continuous

wetting of the surface with water. When cured with wet hessian cloth, the area shall be covered immediately with a high density polyethylene sheet which shall be taped to all the edges which has been repaired.

Packaging and storage:

Comtech Crete ST55 is supplied in 25kg bag; All Comtech products should be stored in a dry shaded area, protected from breakage, deterioration and contamination.

Health and safety:

Comtech Crete ST55 does not classified in the hazardous materials; however it should not be allowed to come into prolonged contact with skin and eyes.

The normal safety precautions (hand gloves & safety goggles) are recommended for handling.

The first aid if some harm happened with eyes in to wash with water.

WARRANTY STATEMENT: The information given here is based on our knowledge, and we believe it to be true and accurate.

We assume no responsibility for the use of these information, recommendations or suggestions.

Users should always refer to the most recent issue of the technical data sheet for the product concerned copies of which will be supplied on request.

