

ShaliFix® FRM

Polymer Modified Fiber Reinforced Mortar



STP Limited

Description

ShaliFix® FRM is a single component dual shrinkage compensated, polymer modified fiber reinforced mortar for structural concrete repairs. **ShaliFix® FRM** is suitable for placing in thickness of 12 mm to 50 mm both vertically and overhead. **ShaliFix® FRM** provides a durable, strong structural repair fully compatible with host concrete.

Characteristics - Physical

Appearance	Grey Powder	Application temperature, °C	
Density, gm / cc	2.25 ± 0.05	• Substrate	5 to 40
Water / Powder ratio	0.16	• Material	5 to 30
Mixing water, 25 kg bag, L	3.75 – 4.25	Recommended thickness range, mm	12 - 50

Characteristics – Technical

Property	Method	Result
Compressive strength, MPa	ASTM C109	
• 1 day		15
• 3 days		30
• 7 days		40
• 28 days		50
Tensile Strength @ 28 days MPa	ASTM C1583	> 4

Application

- Mass infill to large areas.
- Repairs to irregular profiles.
- Excellent for repairs to fire-damaged concrete

Advantages

- Easy to use.
- Good adhesion.
- No primer is required.
- Ideal for vertical or horizontal structural repairs.
- Single layer high build applications.
- Material is thixotropic in nature after mixing with water.
- Dual Shrinkage Compensation achieved.

Application Methodology

➤ Surface Preparation

- All loose traces of concrete or mortar, dust grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact vibrating cleaning method, e.g grit or high pressure water blasting are recommended. Cut the edges of the repair vertically to a minimum depth of 5 mm.
- Clean all exposed reinforcement. Ensure back of rebar is also clean.
- Where reinforcing bars are corroded, cut back the concrete to at least 20 mm behind the reinforcing bars. Grit blast to remove corrosion products from around reinforcing bars and coat with ShaliPrime Zn R / ShaliPrime Zn Ph to protect from corrosion.
- Replace the affected part of rebar if the diameter after grit blasting is found reduced by more than 20% of the original diameter .

➤ **Material Preparation**

- Mix **ShaliFix® FRM** in a forced action pan mixer, or with a helical paddle attached to a low speed (500 rpm) mixer for 3 minutes until a lump free, thixotropic consistency is achieved.
- Only use potable water @ 3.75 – 4.25 L per bag of **ShaliFix® FRM**.
- Allow the mortar to rest for 2 – 3 minutes and then remix briefly before applying.
- If the ambient temperature is more than 30 deg C, use cold water as the mixing water.

➤ **Application of Material**

- Ensure that-
 - During application minimum temperature must be maintained at least for 24 hours thereafter for optimum curing of the product.
 - Prepared substrate is pre-soaked preferably for 24 hours, but at least 2 hours before applying **ShaliFix® FRM**.
 - Surface is saturated surface dry, but without standing water.
- Apply **ShaliFix® FRM** by spray or trowel.. Apply mix product directly to the prepared damp substrate, or wet on wet onto the primed surface.
- A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve adhesion especially in case of hand application.
- Apply to the desired layer thickness of 12 to 50 mm and level using a screeding bar, trowel or wooden board.
- Apply **ShaliFix® FRM** in thicker layers in smaller patches or where additional reinforcement is present.
- Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar begun to stiffen.

Cleaning & Maintenance

Clean all tools immediately after use with Xylene. Do not allow the material to harden

Health & Safety

- Avoid contact with skin / eyes, and avoid swallowing.
- Ensure adequate ventilation and avoid inhalation of vapour.
- Wear suitable protective clothing, gloves and eye protection.
- In case of skin contact, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent to clean the contacted area.
- In case of eye contact, wash with plenty of clean water and seek medical advice.
- If swallowed, seek medical attention immediately. Do not induce vomiting.

Packing

Available in 25 kg pack.

Storage

Store in a cool dry place, under shed, away from heat.

Shelf Life

6 months in original unopened sealed condition.



Advisory Cell
STP Limited
+91 81302 81114
Waterproofers to the Nation

STP's Businesses
Waterproofing & Insulation
Road Surfacing
Pipeline Coating
Protective / Anti-Corrosive Coating
GARA (Grouts & Admixtures)
Sealant & Additives
Repairs & Rehabilitation
Epoxy Flooring

