

# ShaliFix® FRM 50



Non-Shrink Polymer Modified Fiber Reinforced Mortar

## Description

**ShaliFix® FRM 50** (formerly known as ShaliFix FRM 90) is a single component, polymer modified, smooth finish, ready mix dry powder with low rebound, better compressive strength and facilitating painting after 24 hrs.

**ShaliFix® FRM 50** consisting of select fibers, requiring just addition of clean water to produce a highly consistent fiber reinforced mortar for structural and load bearing repairs.

## Characteristics - Physical

Appearance	Grey Powder	Application temperature, °C	
Density, gm / cc	1.90 ± 0.05	• Substrate	5 - 40
Water / Powder ratio	0.22	• Material	5 - 30
Mixing water, L / 30 kg bag	6.5 - 7.0	Recommended thickness	3 - 35
Yield for 30 Kg bag, m <sup>3</sup>	0.0133	range, mm	

## Characteristics – Technical

Property	Method	Result
Compressive strength, 28 days, MPa	ASTM C 109	> 45
Tensile Strength @ 28 days MPa	ASTM C 1583	> 3

## Application

**ShaliFix® FRM 50** is suitable for single layer hi-build finish for variety of repair applications including overhead repairs, like,

- Mass infill to large areas.
- Plastering over factory made pre-cast bricks.
- Repair of,
  - Surface stripping and eroded surface.
  - Irregular profiles.
  - Fire-damaged concrete.
  - Pillars, columns, girders.

## Advantages

- Smooth Surface with 50 MPa compressive strength, also facilitating painting in 24 hrs.
- Very low rebound loss.
- Easy to use, single layer hi-build application, ideal for vertical / horizontal structural repairs
- Cost effective.
- Shrinkage control enables repairs to be completed properly in the very first application.
- Enhances durability.

## Application Methodology

### ➤ Surface Preparation

#### ▪ For Reinforcement

- 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 rebars 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

#### ▪ For Concrete / Plaster

- Remove all loose traces of concrete or mortar, dust grease oil, etc.
- Remove damaged or contaminated concrete to obtain a keyed aggregate exposed surface.
- Non-impact vibrating cleaning method, e.g., grit or high-pressure water blasting is recommended. Cut the edges of the repair vertically.
- For high absorbent surface, use **ShaliPrime® WB** for better adhesion.

#### ➤ Material Preparation

- Mix **ShaliFix® FRM 50** with a low-speed mixer for 3 minutes until a lump free, thixotropic consistency is achieved.
- Use clean water @ 6.5 - 7.0 L / bag of **ShaliFix® FRM 50**.
- Allow the mortar to rest for 2 - 3 minutes and then remix briefly before applying.
- If the ambient temperature is more than 40°C, use cold water for mixing.

#### ➤ Application of Material

- Preferably apply prepared **ShaliFix® FRM 50** when the ambient temperature in the range of 10°C to 40°C.
- Ensure that,
  - Prepared substrate is pre-soaked before applying **ShaliFix® FRM 50**
  - Surface is saturated surface dry, but without standing water.
- Apply **ShaliFix® FRM 50** by spud / 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.
- Apply to the desired layer thickness of 3 to 35 mm and level using a screeding bar, trowel or wooden board.
- Apply **ShaliFix® FRM 50** 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.
- Do not apply **ShaliFix® FRM 50** in standing water.

#### Cleaning & Maintenance

- Clean all tools immediately after use with water.
- 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 30 kg pack.

#### Storage

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

#### Shelf Life

6 months in original unopened sealed condition.



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