

# ShaliCem<sup>®</sup> FWP

2K Cementitious Polymer Modified Waterproofing Coating



## Description

**ShaliCem<sup>®</sup> FWP** is a two component; polymer modified cementitious coating for the waterproofing and protection of concrete surfaces, plasters, screeds and cement-based substrates ceramic and marble.



## Approvals / Standards

USFDA-175.300 for contact with potable water.

cftri

Approved

## Product Information

<b>Form, Mixing Ratio</b>	Component A (Powder) - Grey, Component B (liquid) - Milky White Component A : Component B = 4 : 1 (w/w)
<b>Handling &amp; Storage</b>	Store under cover out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.
<b>Packaging</b>	Available in 25 kg unit pack, comprising 20 kg powder and 5 kg liquid.
<b>Shelf Life</b>	12 Months from the date of manufacture when maintain in protected storage in original unopened sealed condition at 5 - 40°C.
<b>Handling Precautions</b>	As with all chemical products, care should be taken during use and storage to avoid contact with eyes mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. Keep away from children and animals. After opening the seal, always consume total material.

## Technical Characteristics at 27°C, 55% RH

Properties	Standard	Result
Application temperature, °C	--	10 - 40
Theoretical Coverage / mm, kg / m <sup>2</sup> **	--	3 - 3.2
Working time, minutes	--	50 - 70
Mixed Density, gm / cc	ASTM D 1457	2.0 ± 0.03
Touch dry time, hours	--	1
Overcoat time, hours	--	3 - 6
Full cure, days	--	14
Elongation after 14 days, %	ASTM D 2370	8 - 11
Tensile strength after 14 days, MPa	ASTM D 2370	1.7 ± 0.2
Adhesion to Concrete, MPa	ASTM D 4541	2.1 - 2.5
Compressive strength, MPa		
• 3 days	ASTM C 109	2 - 2.5
• 28 days		20 - 25

\*\* Actual site consumption is dependent on the application area, substrate roughness, surface profile and thickness required

## Field of Application

- All masonry surfaces, can be used as both side waterproofing
- Basements, tunnels, machinery pits, cisterns, reservoirs
- Roofs and Terraces
- Swimming pools, Toilets, water retaining structures

## Advantages

- UV Resistant
- No additional water required to make the slurry
- Hand or spray applied
- Very good adhesion with sound and prepared substrates
- Easy and fast mixing
- Protects concrete against water penetration, chloride and carbonation

## Application Information

- ✓ **Substrate Temperature** - +10°C Min / +40°C Max
- ✓ **Ambient Temperature** - +10°C Min / +40°C Max

## Application Methodology

### ➤ Surface Preparation

- Prior to application of **ShaliCem® FWP**, all surfaces must be prepared properly to avoid failure. The surface shall be cleaned to remove all dust, foreign materials/loose particles or any deposits of contaminants, which could affect the bond between the original substrate and the **ShaliCem® FWP** system. This can be done by scarifying, grinding, water blasting, sand blasting, acid washing or any other approved method.
- Repair any cracks, honeycombed pockets or holes by PMC mortar or **ShaliFix FRM**.
- Ensure to dampen walls for an hour before application and keep damp allowing moisture to soak in. Wet dense concrete at least twice, not less than 30 minutes apart. Surface must be damp during application. Do not allow standing water.

### ➤ Material Preparation

- Add total Component B into a suitable container containing and thereupon, add whole Component A slowly and mix with the help of paddle mixer at low speed (300 - 400 rpm).
- The mix has to be stirred thoroughly, until lump-free smooth slurry is obtained.
- Stand for 4 - 5 minutes after mixing to release air from the mix.

### ➤ Application of Material

- All concrete surfaces (flat and vertical / inclined) shall be thoroughly pre-wetted to saturated surface dry condition; at the same time there should not be any standing water on the surface or it should not be too wet prior to application of **ShaliCem® FWP**.
- Apply **ShaliCem® FWP** on clean and dampen surface with brush, roller, trowel or spray.
- If required apply second coat when the first coat is dry.
- It is recommended each coat should not exceed 1 mm thick.
- After application of **ShaliCem® FWP**, initial air drying shall be done for 3 - 6 hours. During this period, no water should be used for curing. If there is a chance of rain or hot (temperature above 40°C), windy atmospheric conditions within this period, protect the coating by covering with waterproof plastic sheet.
- When surface becomes hard enough, fog spray with clean water keeping waterproofed surface damp for 2 - 3 days. Hotter the weather, more critical the curing. Light spraying of water is recommended more frequently and for several days.
- After the moist curing the **ShaliCem® FWP** coating shall be allowed to air dry for 3 days before submersion in water.

### ➤ Protection of Waterproofing

- Apply PCC admixed with **ShaliPlast IW** to protect the treated surface. Alternatively, for trafficable roof, use **ShaliProtek PU HA** coating.

## Precautions

- During mixing and application, DO NOT ADD WATER TO DILUTE THE MATERIAL.
- Post final application of **ShaliCem® FWP** coating, at no point of time should be left completely dry or submerged in water.
- Reinforcement rods and other sharp materials should not be dragged over the **ShaliCem® FWP** membranes, as this can puncture the same.

## Value Base of Product Data

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control and different test methods.

## Health and Safety information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent **Material Safety Data Sheet**.

- 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.

### Cleaning & Maintenance

- Clean all tools immediately after use with STP Thinner only. Do not allow the material to harden. Hardened materials should be removed mechanically.



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- Sealants and Additives   ■ Pipeline Coating
- Protective / Anti-Corrosive Coating   ■ Epoxy Flooring
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