

ShaliCrete® 47

Polymerised High Solid Acrylic Coating



STP Limited

Description

ShaliCrete® 47 is a multifunctional polymerised acrylic polymer with 47% solid contents for enhancing properties of concrete, mortar, grout, cement slurry etc. through better bonding, waterproofing and improvement in several other properties. **ShaliCrete® 47** is used for permanently bonding plaster to ensure durable finish of exterior walls, bonding new concrete to old concrete, making mortar for repairing and for waterproofing. **ShaliCrete® 47** is highly durable in wet condition as well.

ShaliCrete® 47 complies to BS 6319 Part 2,3 & 4.

Characteristics

Appearance	Milky white liquid	Theoretical Coverage *	
Pot life, minutes	60	• As waterproofing coating	3.0 – 3.5 m ² / kg in 2 coats
Compressive strength, N/mm ²	10 – 13 at 7 days	• As mortar modifier	5 kg / 50 kg cement
Adhesion strength to concrete, N/mm ²	38	• As bonding agent	4.5 – 5.0 m ² / kg per coat
Chloride content	NIL		
pH	7.7	Solid Contents, %	47 ± 2

* Depending upon surface condition.

Application

- Waterproofing of roofs, walls & water storage tank.
- Waterproofing of toilet sunken slabs, kitchen, balconies and chajjas in high end building.
- Repairs spalled concrete, floor columns, beams, chajjas, slab etc.
- Bond coat for old to new concrete & masonry plaster.
- Priming of reinforced concrete.

Advantages

- Improves waterproofing properties when used as a coating mixed with cement.
- Contains no chloride.
- Provides excellent bond to concrete & masonry plaster.
- Improves tensile, flexural and compressive strength as compared to control concrete hence increases the durability of structures.
- Easy to use.
- Improves bond strength, facilitating tough and hard wearing surface.
- Allows trapped vapour to escape thus preventing peeling / blistering.
- Reduces cracking through increased mortar flexural strength and reduced permeability.
- Increases mortar, wear resistance under rubber wheeled traffic and improves mortar tensile strength.
- Non-flammable and does not give toxic gases when exposed to fire.
- Not harmful to health of workman.

Application Methodology

➤ Surface Preparation

- Ensure that structure is at least 3 days old, sound and free from dirt, soil, oil release agents, laitance and any other foreign materials which may impair the bond, penetration and / or the overall performance of **ShaliCrete® 47**. Do not etch with acid.
- Remove chemically any efflorescence, form oil, mould etc.

- Ensure to fill cracks / honeycombs / holes / faulty construction joints with mortar made of **ShaliCrete® 47**, cement and super fine sand in the ratio 1 : 1 : 3 and allow it to touch dry.
- Pre-wet / dampen all prepared concrete surface before application of **ShaliCrete® 47**. Do not allow standing water.

➤ Slurry Preparation

- Mix **ShaliCrete® 47** with neat cement in the ratio as shown in table below till obtaining homogeneous, lump free mixture with better brushable consistency:

Application	SC:W:C:S	Dilution in Water	Application Area	Coverage (SqM/Kg)	Strength (Kg/cm ²)		
					Compressive	Flexural	Bond
Water-proofing coating	1:Nil:2:Nil	No dilution	Waterproofing coating	2.5 Thickness approx. 1 mm (2 coats)	-	-	-
Cement slurry / Bond	1:Nil:2:Nil	No dilution	Bonding coat	2.5 Thickness approx. 1 mm (2 coats)	285	6	7.5
Mortar	1:Nil:2:5	No dilution	Polymer repair mortar	2.25 Thickness 2 mm (1 coat)	405	85	7.8
Concrete	Add SC 10% by wt of cement	As required	Repair concrete and screed	Depending on mixed design	Depending on mixed design		
Additive to cement based paint	Add SC upto 10% by wt of cement in cement paint	As required	External coating for bonding	-	NA	NA	Depends on paint properties

➤ Waterproofing Compound

- Apply **ShaliCrete® 47** slurry by brush on the surface. Apply two or more coats depending on the surface condition.
- Ensure time interval of 5 -6 hr between two coats.
- Do not apply slurry coat on standing water.
- After 6 hrs of air drying the coated surface should be cured by means of spraying water for next 24 hr. Do not leave coated surface dry during this period. Do not allow the coated surface to be submerged under water during this period.
- Allow to dry for 24 hrs after moist curing. **Do not apply water through a hose or pressurized nozzle.**

➤ Bonding Agent

- Bond coat with a mixing ratio of 1:1 by volume (**ShaliCrete® 47** : Cement).
- The applied bonding agent should be in tacky condition before topping with new concrete.

➤ **Repair Mortar**

- Modified repair Mortar with a mixing ratio of Cement 50 kg : Sand 150 kg : **ShaliCrete® 47** 5 kg with required amount of potable water.
- Apply in specified area.
- Keep the surface moist for 12 - 24 hr after application.

➤ **As an Additive for Floor Screeds & PCC**

- For patching repair mortar or render, mix Cement : 50 kg, Sand 75 kg, 6 mm downsize aggregates 75 Kg **ShaliCrete® 47** 5 kg & Water 15 - 20 Ltr.

➤ **As a coating for Reinforcing Steel Priming**

- Apply one coat of **ShaliCrete® 47** mixed cement slurry (1:1 by volume) to all exposed steel reinforcement and allow it to dry.
- A Second coat application is also recommended.
- Ensure surface is thoroughly soaked with clean water prior to application of **ShaliCrete® 47**.
- Apply **ShaliCrete® 47** with brush or rollers on the substrate and avoid ponding and remove any excess material.
- Repair or topping application should be carried out whilst the primer is still tacky.

Cleaning & Maintenance

Clean tools and equipment with water before the material hardens.

Precaution

Provide 15 – 25 mm protective plaster / screed over the **ShaliCrete® 47** membrane.

Health & Safety

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

Packing

Available in, 5 kgs, 20 kgs and 200 kgs containers.

Storage

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

Self Life

12 months in original unopened condition.



STP Limited
Enhancing Structures' Life

Product Range

- Waterproofing and Insulation
- Road Surfacing
- Sealants and Additives
- Pipeline Coating
- Protective / Anti-Corrosive Coating
- Epoxy Flooring
- Grouts / Admixtures
- RestoFix- Repair / Rehabilitation
- Other Construction Chemicals



Advisory Cell: +91 81302 81114