

Description:

TechnoCrete® AM 90 is a high solids multipurpose acrylic-polymer modifier emulsion which enhances the adhesion, strength, flexibility, physical properties and durability of Portland cement mortars, plasters, stucco, and concrete mixes. TechnoCrete® AM 90 makes the cement product more waterproof, more stain resistant and extend its life.

TechnoCrete® AM 90 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 or protective coating. In conjunction with cement TechnoCrete® AM 90 provides a seamless waterproof coating to concrete and masonry surfaces. TechnoCrete® AM 90 complies to BS 6319 Part 2,3 & 4.

Application Includes:

TechnoCrete® AM 90 can be used for following application-

- Waterproofing of roofs, walls & water storage tank.
- Repairs spalled concrete, floor columns, beams, chajjas, slab etc.
- Bond coat for old to new concrete & masonry plaster.
- Priming of reinforced concrete.
- Waterproof and damp-proof coating in the form of cement slurry/cement mortar of toilet sunken slabs, kitchen, balconies and chajjas in high end building.
- Protective layer for cementitious surface
- Injection into concrete/rock structures in the form of cement slurry
- As a mortar or slurry coating for better resistant to chemical attack

Features & Benefits:

- 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.
- 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.

Method of Application**Surface preparation**

Prior to application of TechnoCrete® AM 90, ensure to clean the substrate which should be free from all the dust, foreign particles, loose aggregate and oil grease etc. This can be done with the help of scarifying, grinding, water jetting and sand blasting etc. The surface should be wetted, well prior to application, thoroughly with water to get SSD condition. Ensure to fill cracks, honeycombs, patch holes & faulty construction joints with mortar made of TechnoCrete® AM 90, 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 TechnoCrete® AM 90. Do not allow standing water.

Slurry Preparation

Mix TechnoCrete® AM 90 with neat cement in the ratio as shown in table below till obtaining homogeneous, lump free mixture with better brushable consistency:

Application	TechnoCrete® AM 90:W:C:S	Dilution in Water	Application Area	Coverage (SqM/Kg)	Strength (Kg/cm ²)		
					Compressive	Flexural	Bond
Waterproofing coating	1:Nil:2:Nil	No dilution	Waterproofing coating	2.5, Thickness approx. 1 mm (2 coats)	-	-	-
Cement slurry Or Bond coat	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 TechnoCrete® AM 90 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 TechnoCrete® AM 90 upto 10% by wt of cement in cement paint	As required	External coating for bonding	-	NA	NA	Depends on paint properties

For Waterproofing Coating application

Apply TechnoCrete® AM 90 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.

For Bonding Agent

Bond coat with a mixing ratio of 1:1 by volume (TechnoCrete® AM 90: Cement). The applied bonding agent should be in tacky condition before topping with new concrete.

- Non-flammable and does not give toxic gases when exposed to fire.
- Not harmful to health of workman.

Packaging

TechnoCrete® AM 90 is supplied in 30 Kg, 50 Kg & 235 Kg barrel packing.

Storage

TechnoCrete® AM 90 has a shelf life of 12 months if remained unopened, stored in cool dry place.

Precaution & Limitations

TechnoCrete® AM 90 should not be used in isolation of cement. TechnoCrete® AM 90 shall be applied to the substrate temp above 10°C to below 40°C. Ensure to provide a protective plaster over the final coat to avoid mechanical damage.

Prepared surface should be thoroughly dampened with water preferably over night before any application

Health and Safety instructions

TechnoCrete® AM 90 is non-toxic. Gloves and goggles should be worn. Any splashes to the skin or eyes should be washed off with clean water. In the event of prolonged irritation, medical advice should be sought. Should use a dust mask while handling the powder.

Additional Information: Techno Builders Solutions® By Sterling Technotrade India Pvt.Ltd - The Specialist Construction Chemicals Company® range of associated products includes high performance concrete Admixtures, Adhesives, Protective Coatings, Concrete Repairs, Industrial Flooring, Grouts & Anchors, Joint Sealants, Surface Treatments, curing compounds, repair mortars, release agents, Grinding Aids & Waterproofing.

*Separate datasheet are available on these products.

Disclaimer: The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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For Repair Mortar

Modified repair Mortar with a mixing ratio of Cement 50 kg: Sand 150 kg: TechnoCrete® AM 90: 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 TechnoCrete® AM 90- 5 kg & Water 15-20 Ltr.

As a coating for Reinforcing Steel Priming

Apply one coat of TechnoCrete® AM 90 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 TechnoCrete® AM 90. Apply TechnoCrete® AM 90 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.

Curing

Moist curing should be done for a period of 3 days by spraying / sprinkling of potable water after about 6 hours from the time of application of the final coat. After moist curing the coating shall be allowed to dry before submersion in water.

Do not allow the rapid drying of the coating by covering the coating with help of polythene sheet in case of high humidity and windy condition.

Technical Properties

Appearance before mixing with cement	Milky white coloured liquid
Appearance when mixed with cement	Grey
Specific gravity	1.03 +/- 0.02
pH value	>7
Adhesion strength to concrete, N/mm ²	38
Compressive strength, N/mm ²	10-13 at 7 days
Solid Contents, %	45 ± 2
Area of application	Water proofing and repairs for cementitious substrate.
Theoretical Coverage: For waterproofing coating Two coat (with glass fibre mesh)	1.5 m ² - 1.6 m ² / kg 1.75 m ² - 1.85 m ² / kg
For waterproofing coating Two coat (without glass fibre mesh) As mortar modifier As bonding agent	5 kg /50 kg cement 4.5 – 5.0 m ² /kg per coat
Waterproofing thickness dft	1mm to 1.20mm - two coats
Mix ratio for waterproofing coating	1: 2 (TechnoCrete® AM 90: cement)
Dosage for PMM.	15-20% by weight of cement
Application temperature	Above 10°C to 45°C
Flexural strength	20 kg/cm ² @ 10% dosage 21 kg/cm ² @ 15% dosage

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