

Mahacrete[™] 776

Acrylic Polymer for Repairing and Waterproofing

Description

Mahacrete 776 is a single component 100% acrylic polymer specially developed to improve the properties of cementitious compositions. When it is used with combinations with standard quality of ordinary Portland cement, it enhances the mechanical properties such as bonding (adhesion) with various building materials, flexural, compression and impact strength. It improves the thin section fragility of cement when used as coating.

Features / Advantages

- It is easily mixed with cement, cures to hard, tough, weather resistant coating.
- Bonds strongly to most of the building materials.
- Can be applied in uniform thickness to horizontal and vertical surfaces.
- Can be over coated by exterior emulsion coating or cement based paints.
- Allows trapped vapour to escape thus preventing peeling and blistering.
- Reduces or prevents salt penetration into concrete.
- It is unaffected by UV light and prevents discoloration of concrete and corrosion in steel due to its alkaline nature.
- It is resistant to water, dilute acids and alkali solutions.
- It is non-flammable, non-hazardous, does not evolve toxic gases when exposed to fire, non-toxic to human being.
- Most properties improve on ageing.
- Resistant to fungus and growth of microorganism.

Typical Applications

- Waterproofing of building terrace, toilet sunken portion, basements, waterproofing of water tanks and swimming pools, bridge decks, traffic aprons, runway, parking garages, industrial or factory floors, balconies, mechanical rooms, side walls, reservoirs, channels dams, water tower, tunnels, sewers, silos, foundation walls etc.
- Repairing of concrete & masonry walls- internal, external and terrace roofs by cement mortars.
- Protection of concrete against corrosion and efflorescence.
- As an additive with cement paints, which improves waterproofing property, coverage by 20-25% and life of cement paint.
- As a bonding agent for old and new concrete.

Technical Information

Physical properties		
Sr.No.	PROPERTIES	TEST VALUE
1	Appearance	Milky white Free flowing liquid
2	Viscosity B-4 at 30° C	>15 second
3	pH Value at 30° C	9 to 10

Drying characteristics		
Sr.No.	PROPERTIES	TEST VALUE
1	Initial setting time	24 hours
2	Initial curing time	72 hours with moist cloth or water spray
3	Complete curing time	28 days under water immersion

Chemical properties		
Sr.No.	PROPERTIES	TEST VALUE
1	Resistance to chemicals	passes
2	Water permeability	passes
3	Water resistance	passes

Mixing Ratio		
Sr.No.	PROPERTIES	TEST VALUE
1	For waterproof coating	Cement : Mahacrete 776 (2:1) parts by weight
2	Bonding coat	Cement : Mahacrete 776 1:1 parts by weight
3	For mortars & repair of RCC surface	15-20% by weight on cement quantity
4	For flooring screeds	18-20% by weight on quantity
5	For cement paints	3-4 L / 50kg bag of cement

Mechanical properties		
Sr.No.	PROPERTIES	TEST VALUE
1	Flexural strength 10 % Dosage	20kg/cm ²
2	Controlled Sample	19kg/ cm ²
3	Pull of Adhesion	Excellent
4	Impact resistance. inch/lb	15 ± 5
5	Abrasion resistance	Excellent

Surface Preparation

It is the most important step before application to get best results and to avoid failure.

- The surface must be free from dust, coatings, loose particles, fungus, moss, oils, and mould release agents.
- Clean the surface by scrapping, sand blasting, grinding to remove dirt & loose particles.
- Treat the surface with 5 to 10% hydrochloric acid followed by complete neutralization with water which will improve bonding of the coating.
- Oils, greases and mould release agent can be cleaned with solvents.

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A Methods of Application

- After surface preparation pre-wet the surface with sufficient water.
- Allow the surface to dry for minimum 1 hour. Mix 2kg of cement with 1L of Mahacrete 776 and stir the mix homogeneously till no lump or air bubble remains in the mix.
- Apply coating by brush and allow it to dry for 5-6 hours before application of second coat. Minimum 2 coats are required.
- If using fibre mesh follow the below procedure after 1st coat.
- Apply and unroll fibre mesh evenly on the wet coating before it dries out on larger areas.
- Using a nylon brush, apply 2nd coat of Mahacrete 776 coating over the fibre mesh so as to cover the fabric, allow 5-6 hours of air drying before application of 3rd coat of Mahacrete 776 slurry coating over the surface if required.
- Provide polymer modified protective plaster of 15-20 mm thick over the coating to ensure safety from mechanical damage.

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. Continue the moist curing for at least 72 hours before submersion or ponding 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. Mahacrete 776 coating should be protected from movements of traffic for at least 48 hours.

B Cement Paint Admixtures

- Mix 3-4L of Mahacrete 776 with 50kg of cement paint homogeneously to form an uniform mix.
- Apply the mixed material by brush.
- Allow to dry 2 to 3 hours before application of second coat.
- It increases the covering capacity of cement paint by 20-25%.

C Cementitious Mortar

Depressions, voids can be filled and leveled by using cementitious mortar. For mortar use Mahacrete 776 @15-20% by weight on cement quantity.

Coverage

- As a bond coat (1 part Mahacrete 776 : 1 part cement by weight)
3.5 to 4m²/coat (it may vary depending upon the substrate)
- As a waterproofing coating (1 part Mahacrete 776 : 2 parts cement by weight)
2 to 2.5m²/2 coats.

Precautions & Limitations

- Do not apply when the ambient temperature is below 10°C or above 45°C.
- Do not apply during rains. Application done on SSD condition only.
- Adhesion property may get affected over poor quality putty and very smooth surfaces.
- When applying on a concrete surface make sure the concrete is completely cured.
- For performing any kind of pond test in case of water proofing kindly allow the membrane to be cured for minimum 7 days.
- Consume mixed material within 45 to 60 minutes.
- Do not apply coating over loose or cracked plaster surface.
- Not to be used for cathodic treatments to rebar.



Packing

1L, 5L, 20L, 50L
& 200L



Storage and Shelf life

Shelf life is 2 years. Store the material in cool and dry place.



Cleaning of Tools & Equipments

Tools and equipments can be easily clean with water.

Ecology, Health and Safety

Health & Safety instructions, all chemicals should not come in contact with skin and eyes or be swallowed. Protective gloves and goggles should be worn.

If contact with skin occurs, wash well with soap and water.

Eye contamination should be washed thoroughly with clean water and medical advice sought. If swallowed seek medical attention immediately. Do not induce vomiting.

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Our guarantee applies within the context of the statutory regulations and provisions in force, current professional standards and in accordance with the stipulations set out in our general sales conditions.

The information detailed in the present technical data sheet is given by way of indication and is not exhaustive. The same applies to any information provided verbally by telephone to any prospective or existing customer.

Mahafix

WATERPROOFING SPECIALIST



Nikhil Adhesives Limited

902, 9th Floor, A Wing, Kaledonia HDIL Building, Sahar Road, Opp. D-Mart,
Andheri (East), Mumbai – 400069



8655691400



support.mahafix@nikhiladhesives.com



www.nikhiladhesives.com

