Our Brand FixGuru Waterproofing Solutions Since 1985

CHOKSEY

MASTERCRETE M81

100% ACRYLIC MODIFIER

DESCRIPTION

MASTERCRETE M-81 is a single component 100% acrylic polymer admixture 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.

TECHNICAL INFORMATION

Sr. No	PROPERTIES	SPECIFICATION	TEST VALUE
A	**Physical properties**		
1.	Appearance	Milky white	
2.	Viscosity on fold cup	B-4 at 30^0 C	Free flowing liquid / 13-15 sec
3.	pH Value at 30^0 C		9 to 10
B	**Mixing Ratio**		
1.	For coating		Cement : Master Crete M-81 2:1 parts by weight
2.	For mortars of repair of RCC members		15–20% by weight on cement quantity
3.	For flooring screeds		18-20% by weight on quantity
4.	For cement paints		3-4 ltr. / 50kg. bag of cement
5.	Bonding coat		Cement : Master Crete M-81 1:1 parts by weight
C	**Drying characteristics**		
1.	Initial setting time		24 hrs.
2.	Initial curing time		72 hrs. with moist cloth or water spray
3.	Complete curing time		28 days under water immersion
4.	Finish of surface		Smooth
D	**Mechanical properties**		
1.	Compressive strength (kg/cm^2)	IS 4031-88	80 ± 20
2.	Impact resistance. inch/lb		15 ± 5
3.	Abrasion resistance	ASTM-D-4213-83	2% max.

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E	Chemical properties		
1.	Resistance to chemicals	ASTM-C-672-725	passes
2.	Water permeability	ASTM-E-96/IS2645	Satisfactory
3.	Water resistance	ASTM-C-241-51	passes

FEATURES / ADVANTAGES

- Master Crete M-81 is easily mixed with cement, cures to hard, tough, weather resistant surface & bonds strongly to most of the building materials.
- Master Crete M-81 can be over coated by exterior emulsion coating or cement based paints. It can be applied to a uniform thickness coating on horizontal and vertical surfaces.
- Master Crete M-81 allows trapped water vapour to escape and prevents blistering and adhesion failure.
- It makes cement mortars or coating compact thus preventing 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. Coating is highly durable even in continuous contact with water.
- 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. etc.
- Pools and foundations, reservoirs, channels dams, water tower, tunnels etc.
- Sewers, silos, foundation walls, swimming pools 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 concrete and new concrete.

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SURFACE PREPARATION

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

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

A. BRUSH COATING APPLICATION

For waterproofing of terrace, toilet blocks, swimming pools, water tanks and basements.

1. After surface preparation pre-wet the surface with sufficient water.
2. Allow the surface to dry for minimum 1 hour. Mix 2 kg of OP cement with 1ltr. Of Master Crete M-81 homogenously till no lump or air bubble remains in the mix.
3. Apply coating by brush and allow it to dry for 2 hrs before application of second coat. Minimum 2 coats are required.

B. CEMENT PAINT ADMIXTURES

1. Mix 3-4 ltr. Of Master Crete M-81 with 50kg. of cement paint homogeneously to form an uniform mix.
2. Apply the mixed and diluted cement paint by brush.
3. Allow to dry 2 hrs before application of second coat.
4. It increases the covering capacity of cement paint by 20-25%.

C. PATCHING MORTAR

Depressions, voids can be filled and leveled by using Master Crete M-81 mortar. Use 10% of Master Crete on cement weight.

CURING OF MASTER CRETE COATING & MORTARS

1. Master Crete M-81 coating should be protected from movements of traffic for at least 48hrs and kept moist for the next 24 hrs by sprinkling of water or covering with wet gunny bags. Continue the moist curing for at least 72hrs before submersion or ponding in water.

2. Curing must be continued for minimum 28 days before exposure to weather. Ponding with water for 28 days itself is a waterproofing test.

COVERAGE

1. As a bond coat (1:1 ratio) - 40 - 45 sq. ft./ 1 coat (it may vary depending upon the substrate)
2. As a coating (2:1 ratio) - 25-30 sq. ft./ 2 coats

STORAGE AND SHELF LIFE

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

CLEANING OF TOOLS AND EQUIPMENTS

Tools and equipment's can be easily cleaned with water.

PACKING

1 liter, 5 liters, & 20 liters.