Dr. Fixit Hydrocem Super

POLYMER MODIFIED CEMENTITOUS COATING

Description

Dr. Fixit Hydrocem Super is a two component cementitious coating, composed of high quality cement, properly selected & graded fillers, additives and acrylic polymer. It is suitable for achieving waterproofing for roofs, because it provides strong bonding, good waterproofing and excellent resistant to hydrostatic water pressure by forming highly elastic seamless coating over the applied concrete surfaces.

Areas of Application

Waterproofing of flat Concrete roofs, wet areas, balconies, kitchen and water bodies like water tanks and swimming pools.

Features & Benefits

- **Water proofing** - Tough film buildup provides excellent waterproofing.
- **Elasticity** - Highly elastic film formation which accommodates thermal movements.
- **High film built-up** - withstand 5 m hydrostatic pressure without any leakages.
- **Bonding** - Excellent adhesion to concrete and masonry substrates hence longer life.
- **Seamless coating** – Forms seamless coating without any joints, prevents water leakage.
- **Non-toxic** - Low VOC
- **Ease of application** - Easily applied by brush.

Method of Application

1 SURFACE PREPARATION

- Surface should be sound, clean and free from dirt, oil and other loose material.
- Concrete surfaces should be fully cured (minimum 28 days) prior to application.
- All surface cracks, undulations and voids must be repaired appropriately before application.
- Surface must be in SSD condition prior to application

2 MIXING

- Use slow speed mechanical mixer, add powder component slowly to the polymer in a clean container.
- Stir till smooth and homogeneous slurry, without any lumps, is achieved.
- Allow the mixed slurry to stand for 5-10 minutes for releasing entrapped air during mixing.

3 APPLICATION

- Do not dilute with water
- Apply Hydrocem Super slurry by brush within the pot life of 40-45 mins
- Allow the 1st coat to dry completely for 6-8 hrs before applying 2nd coat.
- Apply 2nd coat in perpendicular direction to the 1st coat
- Air cure the coating for atleast 3-5 days days. Water cure the coating by placing moist hessian cloth, if the coating is exposed to direct sunlight.
- Carry out pond test post curing of final coat and prior to covering the coating with a screed.

4 WATER PONDING TEST:

- After full curing of second coat for at least 3-5 days, a water ponding test can be performed by filling water on the terrace by carefully blocking all the down take drain outlets without damaging the coating. The test shall be carried out for 48 hrs by filling water up to 50 mm level. Observe for leakages if any and then remove the water and allow the coating to dry completely.

5 PROTECTION

- Coating overlay with brickbat coba, china mosaic or mud phaska:
- After the coating is dried lay sand and cement mortar (Plaster) prepared with Dr. Fixit Pidiproof LW+ covering the complete exposed flat area including up stand areas for the protection of applied coating.
- Upon completion of the plaster and proper curing/drying, further finishing activities such as mud phaska, brickbat coba china mosaic & tile fixing can be carried out with proper slope towards the drain water outlet.

PROTECTION CONCRETE SCREED:

- Spread 100 gsm/m^2 geotextile over cured Hydrocem Super as separation layer, before a concrete screed is laid. Protect the coating with a concrete screed in M 20 grade. The protective screed of 40-50 mm (minimum) thickness maintaining an average slope of 1:100 towards the drain outlets for effective and efficient draining of water.
- The composition of screed should be 1:1.5:3 i.e. Cement: Sand: Aggregate with aggregate size 20 mm down. The screed should also have poly propylene fibre 12 mm length & should not be less than 150 gram per 50 kg bag of cement.
- Sprinkle the fibre in site mixer with little water. Keep rotating and add aggregate, sand, cement and balance water. Mix it for a few minutes. In case of manual mixing, for best results mix half the fibre in a bucket of water, stir well and mix in concrete. Likewise add balance fibre.
- The addition of fibre will contribute in controlling cracking caused by volume change (Expansion & Contraction). Helps in increasing flexural strength.
- Angle fillet to be provided while screed application using polymer modified mortar.
- After the application of screed, provide control joints along the length and breadth of entire screed area.
- The joint can be provided by using a saw cutting machine attached with a 3 mm blade within 18-24 hrs of application of screed. The panel size for providing joints should be 3.25 m x 3.25 m.
- 28-30 days later, these joints can be filled with a suitable elastomeric sealant.

Precautions & Limitations

- Do not part mix. Mix the entire quantity of both the components at one go.
- Do not dilute.
- Always add powder to liquid to avoid lump formation.
- Do not cure by flooding with water.
- Dr. Fixit Hydrocem Super needs atleast 3-5 days days for air curing. Water cure the coating by placing moist hessian cloth, if the coating is exposed to direct sunlight.
- Do not conduct any ponding test before it is completely cured for 3-5 days
- Always protect the membrane with screed in areas exposed to foot and other traffic.
- Concrete surfaces must be cured for 28 days before application.
- Additionally, for Bathrooms/Wet areas etc. The waterproofing coating should be done on levelled surface and not directly over bricks/blocks walls. The brick/block surface and joints should be levelled with thin coat of polymer modified mortar. The concealed plumbing/electrical conduits area should be cleaned and packed appropriately with Polymer Modified Mortar.

Technical Information

PROPERTIES	TEST METHOD	RESULTS
Nature & Mixing ratio	...	2 component cementitous coating (1 part polymer & 1.4 part powder)
pH of the mix	...	>10.0
Pot life of the mix @30°C	...	60 minutes
Touch Dry Time	ASTM D 1640:2018	50 minutes

Inter coat application time	...	6-8 hrs
Cure time after 2nd coat	...	3-5 days

PROPERTIES	TEST METHOD	RESULTS
Elongation at break	ASTM D 412:2016	120% minimum
Tensile Strength	ASTM D 412:2016	1.2 N/mm^2
Water Vapour Transmission	ASTM E 96:2016	0.7 Perms
Adhesion strength	ASTM D 7234:2019	1.0 N/mm^2
Crack bridging	EN 1062-7:2004	No cracking upto 2 mm
Water Permeability	EN 12390-8:2019	Passes 5 bar positive water pressure
Reduction in Rapid Chloride, %	ASTM C 1202:2019	70
Food grade certification	CFTRI certification	Passes

Theoretical Coverage*

The approximate coverage per pack at even consistency (DFT of 1.2-1.5 mm thickness) is as follows:

SKU	COVERAGE
20 kg polymer + 28 kg Powder	20-24 m^2

*Coverage may vary depending upon the nature and texture of the substrate

Packing

48 Kg (28 kg powder+ 20 kg polymer)

Shelf Life & Storage

- Shelf life is 12 months from the date of manufacturing in unopened condition.
- Store in cool dry place away from direct heat and sunlight

Health & Safety Precautions

- Skin Contact: Wash skin with soap & water. Remove contaminated clothes.
- On eye contact: Immediately splash eyes with plenty of water. Consult Physician if irritation persists.
- Ingestion :Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a Physician..

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