

HYDROCRYL 450

High Quality Flexible Acrylic Based Waterproofing Membrane

Description:

HYDROCRYL 450 is a high build elastomeric single component liquid applied waterproofing membrane based on unique acrylic latex for high elasticity and durability features. HYDROCRYL 450 is easily applicable on horizontal and vertical surfaces and has excellent adhesion to most substrates including concrete, plaster, masonry, and metal surfaces. Once dried, it forms an elastic seamless waterproofing membrane, resistant to weathering and mild chemical attack.

Due to specific nature of acrylic resin utilized in manufacturing the product, the membrane formed by application of HYDROCRYL 450 is resistant to ultra violet rays with semi-gloss nature. This allows the product to perform perfectly in direct sunlight. Therefore it can be applied to building roofs, hangers, factories, stores and malls.

Uses:

- External water proofing of roofs, hangers, factories for both floor and wall application.
- Water proofing and reflective layer for metal made sheds and hangers
- Water proofing and reflective coating to reduce greenhouse effect for farm houses, poultry and livestock hangers.
- Ceramic coverings in showers and bathrooms.
- Top coat layer in the roofing system comprised of PU foam and water proofing membrane
- Water proofing and reflective in addition to movement accommodation layer for cold stores.
- Can be applied as a top coat to EIFS system to ensure proper waterproofing in addition to extra thermal reduction to the system.

Advantages:

- Water based, safe to use, low odor, easy cleaning, environmentally friendly.
- Can be manufactured according to specified colors

- Semi-gloss, has reflective features to reduce heating and reflect direct sunlight.
- Elastomeric – high crack bridging capability
- Excellent adhesion to most common substrates
- Good resistance to chloride and sulphate ions.

Instructions for Use:

Surface Preparation:

All surfaces should be sound, clean, dry and free from loose material, efflorescence, laitance, curing compounds; dirt, oil and grease. Ensure that concrete surfaces are totally cured.

For application over bituminous membranes on roofs, ensure the membrane is clean, free from contaminants with no de-bonding blisters and should be minimum 4-6 months old.

For polyurethane foam coating, ensure that the surface of the foam is clean, free of dust, contamination. If the PU foam was shaved to slope, ensure clean surface without residual before applying HYDROCRYL 450.

Steel surfaces, must be cleaned by mechanical means or blasting to ensure proper adhesion

Application:

HYDROCRYL 450 is a ready to use single component product. To ensure full homogenous product, shake the pail while closed or mix slowly for 3-5 minutes till a homogenous mix is reached.

HYDROCRYL 450 can be applied with a roller, trowel, brush or spray machine. It is recommended to apply two coats in case of roller or brush applications. Apply rich coat to the surface in a spread rate of 1.3 kg/square meter/coat (500 micron). Subsequent coats to be applied to the first coat with same rate of application preferably in 90-degree application.

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Minimum two coats are required, with a thickness of 500 microns dft per coat to achieve good results of product. For improved strength and flexibility, embed a 65 g/m² non-woven geotextile membrane, whilst the first coat is still wet and all corner joints, fillets and pipe penetration joints. Allow the coating to fully cure for 7 days to achieve its full properties. Prolonged water stagnation will cause the coating to soften and peel off. Adequate protective measures should be taken when applying in water logging areas.

In applications where movement and foot traffic is expected over the roof, it is recommended to embed a fiber glass mesh in the first coat while fresh. Apply the second coat to cover the mesh fully and ensure proper thickness of material applied.

For porous substrate or in a very hot climate, it is recommended to apply the first coat of HYDROCRYL 450 diluted with 20% of water.

TECHNICAL PROPERTIES	
Color	Grey, White
Density	1.34 ± 0.03 kg/m ³
pH	8.0-10.0
Solid Content	>65%
Touch Dry	8 hours
Adhesion to Concrete (ASTM D4541-02)	>1.0 N/mm ²
Shore A Hardness (ASTM D2240)	50
UV Resistance	No Effect
Tensile Strength (ASTM D412)	1.2 N/mm ²
Crack Bridging (BSEN 1062)	>1.5 mm
Elongation (ASTM D412)	>500%
Water Penetration (BSEN 12390)	NIL
Resistance to Hydrostatic Pressure (DIN 1048)	>1.5 bar
Service Temperature	+5°C to +75°C
Chemical Properties	Diluted Acid, petrol, alkali, oil
VOC	Negligible

*Values indicated may vary depending on the environment and conditions of the material. Figures given are tested according to standard laboratory conditions.

Standards:

- EN 14891, 1062, 12390
- ASTM D415, C 1305, 4541-02, 2240

Coverage:

20 kg unit cover approximatn 15 square meter

(minimum 2 coats) @1mm thickness.

*Coverage rate is an approximate value, and subject to actual site conditions.

Packaging:

Single component: 20 kg in plastic pails

Storage and Shelf life:

Store in original packing in a covered area, in cool, dry place away from direct sunlight and other sources of heat and high humidity condition. The shelf life of the product is up to 12 months if stored as per recommendation. Excessive exposure to sunlight and high humidity may reduce shelf life of the product.

Cleaning:

Clean all tools with water before product hardens. Hardened material can only be removed mechanically.

Notes:

- Do not apply with fog, imminent rain forecast or with weather humidity more than 80%.
- Ponding water is to be avoided for a minimum 72 hours once the membrane is applied.
- HYDROCRYL 450 should not be subjected to permanent water immersion.
- Do not apply on substrates having rising moisture.
- Application to be done preferably during falling ambient & substrate temperatures.

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Health and Safety:

Avoid contact with eyes and skin. Wear suitable protective clothing such as coveralls, goggles, dust mask and gloves. Use barrier cream. Ensure that there is adequate ventilation. Do not breathe vapour or spray mist.

FIRST AID:

- Eyes: In the event of accidental splashes, flush with warm water and seek medical advice.
- Skin: Wash skin thoroughly with soap and water
- Inhalation: Remove to fresh air, keep patient rested
- Ingestion: Do not induce vomiting. Seek immediate medical attention.

For further safety information, please refer to HYDROCRYL 450 Material Safety Data Sheet.

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