

# 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 advanced acrylic resins for high elasticity and durability features. HYDROCRYL 450 has excellent adhesion to most substrates including concrete, plaster, masonry, and metal surfaces.

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.

### Applications:

- External water proofing of roofs, hangers, factories.
- 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.
- 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:

- High build, odorless, liquid applied membrane in single application.
- Can be manufactured to any required specified color.
- Semi-gloss, low odor, has reflective features to reduce heating and reflect direct sun light.
- Highly flexible to be applied where movement is expected, with crack bridging ability.

### 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 and has no de-bonding blisters.

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

#### Mixing:

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. Leave the mixed material for a period of 2 minutes entrapped air within the mix before application.

#### Application:

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 3.0 square meters /liter /coat. Subsequent coats to be applied to the first coat with same rate of application preferably in 90 degree application. Minimum two coats are required, with a thickness of 400 microns dft to achieve good results of product.

HYDROCRYL 450 should not be applied on surfaces with a risk of rising dampness. Be aware that all water

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test should be run after 7 days of material application to allow the membrane to be fully cured.

Additional coat of product should be applied around penetrations such as pipes and conduits to ensure proper sealing and waterproofing features.

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.

## Standards:

HYDROCRYL 450 conforms to:

- ASTM D624, ASTM D822, ASTM E514-7A Class E

TECHNICAL PROPERTIES:	
Color	: Grey, White
Density	: 1.25 Kg/m <sup>3</sup>
Pot life	: 50 minutes @ 25°C
Solid Contents	: 60%
Touch dry	: 8 hours
Adhesion to concrete	: >1.0 N/mm <sup>2</sup>
Shore A hardness	: 45
UV resistance	: No Effect
Tensile strength	: 1.2 N/mm <sup>2</sup>
Shear Resistance	: 20 KN/ mm <sup>2</sup>
Elongation	: Above 500 %
Water Penetration	: NIL
Steam permeability	: 6 g./m <sup>2</sup> every 24 hours
Service Temp.	: -5 to +75°C
Chemical Properties	: Diluted acid, petrol, alkali, oil.

## Packaging:

Available in 20 kg. plastic pails.

## Storage:

Store in original packing in dry conditions away from direct sunlight and high humidity levels.

## Coverage:

HYDROCRYL 450 achieves coverage of 3 square meter/liter/coat achieving 200 micron dft per coat.

## Cleaning:

Clean all tools with water before product hardens.

## Shelf Life:

12 months of production date if stored in proper conditions in unopened original packing.

## 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.
- It is recommended to carry out the compatibility test of primer with difficult substrates- bitumen, metal, old paints, etc. prior to application of the following coats.

## Health and Safety:

- Use goggles and gloves during application. Do not breathe vapor of products. Use only in well ventilated areas.
- Avoid contact with eyes or skin.
- In case of eye contact, flush thoroughly with plenty of water and seek immediate medical help.

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This technical data sheet is not considered as local building codes. It shall be used as general reference for the product, based on our current knowledge and experience. However the company do not accept any liability arising from the use of its products as it has no direct control on how and where the product is applied.

