

# HYDROCRYL CRC

## Acrylic Based Waterproof and Reflective Roof Coating

### Description:

HYDROCRYL CRC is a high build elastomeric single component liquid applied waterproofing, cool reflective roof coating (CRRC). It is based on APEO free water based cross linked acrylic polymer resins which was designed specifically for the Middle East climate with extreme high temperature climate and long hours of sun exposure and frequent dust storms. HYDROCRYL CRC was developed to be applied on concrete, metal, sprayed polyurethane foam and other substrates to provide a high elastic and durable protective and reflective coatings.

HYDROCRYL CRC provides excellent durability and dirt pickup resistance with high solar reflectivity. It is resistant to ultra violet rays. These features help to reduce the overheating at high temperature, which effectively contributes to an extended life of coating. It can be applied to building roofs, hangers, factories, stores and malls as a long term energy efficient coating.

### Uses:

- External water proofing, protective and reflective coating for roofs, hangers, factories.
- 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
- Reflective roof coating to reduce the internal temperature inside the buildings.
- 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.
- Can be manufactured to any required specified color.

- Semi-gloss, low odor, has reflective features to reduce heating and reflect direct sunlight, which reduces the cost of cooling the building
- Highly flexible to be applied where movement is expected, with crack bridging ability. Outstanding exterior durability and UV resistance.
- Long lasting, low temperature flexibility and crack resistance with long life protection and sustainable benefits to the roof.
- High resistance to dirt pick-up for long term reflectivity.
- Excellent adhesion to roofing surfaces including concrete, galvanized sheets, polyurethane foams, etc.
- Very good protection against carbonation
- Improves the energy efficiency of existing building
- Very good resistance to transmission of ponded water.
- The applied coating using HYDROCRYL CRC cool reflective roof coating (CRRC) can help building to achieve Leadership in Energy and Environmental Design accreditation (LEED)

### 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 CRC.

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

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## Mixing:

HYDROCRYL CRC 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 to allow entrapped air within the mix to escape before application.

## Application:

HYDROCRYL CRC can be applied with a roller, trowel, brush or spray machine. It is recommended to apply minimum two coats in case of roller or brush applications. Apply rich coat to the surface in a spread rate of 1.0 square meters per liter at 0.5 mm dry film thickness. 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 total dry film thickness of 1 mm to achieve good results of product.

HYDROCRYL CRC should not be applied on surfaces with a risk of rising dampness. Be aware that all water test should be run after 14 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 CRC diluted with 20% of water.

## Standards:

- ASTM 836/M, D4541-2, D412
- EN 14891, 12390-8

TECHNICAL PROPERTIES	
Color	Grey, white
Density	1.34 ± 0.03 kg/lit
Solid Content	62 ± 3%
Touch Dry	8 hours
Adhesion to Concrete (ASTM D4541-02)	>1.0 N/mm <sup>2</sup>
Shore A Hardness (ASTM D2240)	50
UV Resistance	No Effect
Tensile Strength (ASTM D412)	1.2 N/mm <sup>2</sup>
Elongation ASTM D412)	Above 350%
Water Penetration (EN 12390, part 8)	NIL
Service Temperature	-5 to +70°C
Chemical Properties	Diluted Acid, Petrol, Alkali, Oil

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

## Coverage:

One 20 kg unit of HYDROCRYL CRC achieves coverage of approximate 7.5-8.0 square meter (minimum 2 coats) at 1.0 mm dry film thickness.

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

## Packaging:

Available in 20 kg. plastic pails.

## Storage:

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

## Shelf Life:

HYDROCRYL CRC can be utilized within 12 months of production date if stored in proper conditions in an unopened original packing.

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## Cleaning:

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

## 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 CRC Material Safety Data Sheet.

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