

HYCHEM DECKPROOF

Trafficable waterproof membrane



HYCHEM
EPOXY SYSTEMS

HYCHEM DECKPROOF is a flexible, crack bridging membrane suited to a wide variety of waterproofing applications. The product is used in combination with Hycryl Solar and Hycryl 304 to produce an exposure and UV resistant water-proof membrane system which is capable of withstanding foot and vehicular traffic.

TYPICAL APPLICATIONS

HYCHEM DECKPROOF based membrane systems are suitable and recommended for:

- The waterproofing of pedestrian and vehicular traffic areas such as rooftops, balconies and carparks
- The protection and waterproofing of stadium terracing
- The waterproofing of containment structures such as reservoirs and banded material storage areas
- The waterproofing of bridge decks prior to asphalt resurfacing
- The waterproofing of turnells, channels and dams
- Protection and waterproofing of offshore platforms

COMPANION PRODUCTS

HYCHEM DECKPROOF is also available in a spray applied version, known as DECKPROOF SP. Prior to application of Hycryl DECKPROOF, concrete surfaces need to be sealed with Hycryl 101 primer. Asphalt surfaces can simply be primed with a coat of Hycryl DECKPROOF. Metal and ceramic surfaces are primed with Primer CM.

Exposed Hycryl DECKPROOF surfaces need to be UV protected by coating with Hycryl Solar. A further coat of Hycryl 304 can be applied to seal in broadcast alumina antislip aggregate.

FEATURES AND BENEFITS

HYCHEM DECKPROOF is a methacrylate modified Polyurethane membrane. This provides the excellent crack bridging characteristics of Polyurethane with the rapid cure and good interlayer bonding of methacrylate resins.

The methacrylate cure system also allows the membrane to be applied at temperatures down to -10°C.

The applied membrane has excellent waterproofing properties, withstands stress and substrate movement and is highly impact and puncture resistant.

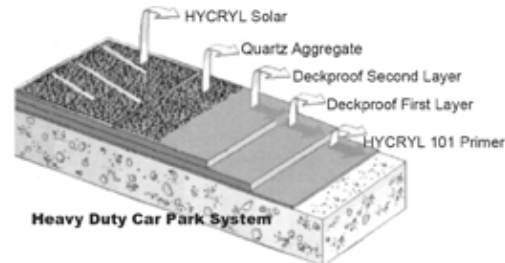
Once applied, it is fully cured within 1 hour of application and ready for traffic. Damaged sections can easily be repaired with further toppings of membrane even after many months.

CHEMICAL RESISTANCE

HYCHEM DECKPROOF is resistant to grease, mineral oils, salt solutions and dilute mineral acids. For other containment chemicals please contact the Hycryl Technical Department.

SPECIFICATION GUIDELINES

The specific recommendation for each Hycryl DECKPROOF waterproofing system will vary with the actual environmental and traffic conditions it is expected to cater for. Areas exposed to heavy traffic and with widespread moving cracks will need to be specified with a higher level of topping thickness.



The following 2 specifications provide an outline for light and heavy traffic conditions. Many other variations can be considered. eg. antislip aggregate would not be required under stadium seating.

ROOFTOPS, CARPARKS, STADIUMS, AND BALCONY MEMBRANE WATERPROOFING SYSTEM

| A. Light Duty - Minimum 1.5mm Topping Depth | |
|---|---|
| Step 1 | Repair all cracks in excess of 500 microns with HYFLEX NS |
| Step 2 | Prime the concrete surface with Hycryl 101 at 3 sqm/ltr |
| Step 3 | Apply Hycryl DECKPROOF at 1 square metre per litre with a squeegee or knocked trowel |
| Step 4 | Apply Hycryl Solar at 4 square meters per litre and broadcast suitable alumina antiskid aggregate |
| Step 5 | Apply Hycryl 304 pigmented sealer at 4 square meters a litre to seal in Antiskid |
| B. Heavy Duty - Minimum 3mm Topping Depth | |
| Step 1 | Repair all cracks in excess of 1.5mm with HYFLEX NS |
| Step 2 | Prime the concrete surface with Hycryl 101 at 3 sqm/ltr |
| Step 3 | Apply Hycryl DECKPROOF at 1.4 l/sqm with a squeegee or knocked trowel |
| Step 4 | Apply a second coat of Hycryl DECKPROOF PA at 1.4 l/sqm |
| Step 5 | Broadcast suitable antislip aggregate into the wet Hycryl DECKPROOF (4 kg/sqm) |
| Step 6 | Apply a coat of Hycryl Solar to seal in antislip (3-4 sqm/ltr) |

TECHNICAL CHARACTERISTICS

| HYCHEM DECKPROOF | |
|------------------------|-----------------------------------|
| Elongation | >300% - @ 20°C >100% - @ -20°C |
| Tensile strength | 11 MPa |
| Elastic modulus | 5.6 MPa |
| ShoreD hardness | 55 |
| Abrasion 1000 cycles | 64 mg |
| Dynamic crack bridging | 75mm |
| Viscosity | 100-130 MPas |
| Density | 1.23 g/ml |
| Pot life | 15 mins |
| Curing time | 60 mins |
| Flash point | 11.5°C |

| HYCRYL SOLAR | |
|----------------------|----------------|
| Elongation | >130% - @ 20°C |
| Tensile strength | 6.8 MPa |
| Elastic modulus | 38 MPa |
| ShoreD hardness | 55 |
| Abrasion 1000 Cycles | 51 mg |
| Viscosity | 130-170 MPas |
| Density | 0.98 g/ml |
| Pot life | 15 mins |
| Curing time | 90 mins |
| Flash point | 11.5°C |

APPLICATION GUIDELINES

Surface preparation

All Substrates must be dry, firm and free of dust, fat and oil. Conventional methods of surface preparation such as degreasing, scarifying and grinding are suitable.

Priming

The HYCRYL 101 needs to be thoroughly stirred prior to adding thebenzoyl peroxide catalyst. The weight of peroxide to be added is dependent on temperature:

- 1% at 30°C
- 2% at 20°C
- 4% at 10°C
- 6% at 0°C

The primer is applied with a shortnap roller. Quartz sand is sprinkled into the wet primer to aid adhesion. (0.3 kg/sqm).

Membrane Application

Mix the liquid membrane before use, to disperse all ingredients. Catalyst is then added to the liquid with the quantity varying with temperature. Each 30kg kit of membrane requires catalyst as follows:

- 200g at 30°C
- 350g at 20°C
- 700g at 10°C
- 1200g at 0°C

For temperatures below zero, a special accelerator needs to be added.

Topcoat Application

Apply HYCRYL Solar with a squeegee and/or paint roller at a minimum coating thickness of 3 sqm/l. This product may also be applied at a higher coating depth up to 0.8 l/sqm.

Add catalyst to liquid according to environmental temperatures:

- at 30°C 80g or 120ml per 10 Litre of HYCRYL Solar
- at 20°C 100g or 150ml per 10 Litre of HYCRYL Solar
- at 10°C 200g or 300ml per 10 Litre of HYCRYL Solar
- at 0°C 300g or 450ml per 10 Litre of HYCRYL Solar
- at -10 C 500g or 750ml per 10 Litre of HYCRYL Solar

NOTE: Antislip and Antiwear Aggregate can be added to the HYCRYL Solar as required.

HEALTH AND SAFETY

Protective clothing, gloves and safety goggles must be worn when handling HYCHEM DECKPROOF, HYCLAD Solar, and HYCRYL Primers.

When the product is being used in enclosed spaces, forced ventilation must be arranged.

The product is flammable, therefore avoid all contact with a source of ignition.

Avoid strong concentration of vapour and remove all food stuffs from the vicinity, to prevent food spoilage.

SAFETY PRECAUTIONS

Epoxy products may cause allergic reactions through skin contact, goggles, protective gloves and overalls must be worn. Ensure that there is adequate ventilation and avoid breathing the vapour.

Field Support

Field support where provided, does not constitute supervisory responsibility. Suggestions made by HYCHEM either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they and not HYCHEM are responsible for carrying out procedures appropriate to a specific application.

Customer Responsibility

The technical information and application advice given in this publication is based on the best information available at the time of print. As the information herein is of a general nature, no assumption can be made as to the product suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation. The owner, his representative or the contractor is responsible for checking the suitability of products for their intended use.

Exclusion Clause

1. *The information contained in this data sheet is based on many years experience and is correct to the best of our knowledge. HYCHEM will be under no liability whatsoever whether in:*
 - a) *Contract or tort (including, without limitation, negligence)*
 - b) *Breach of statute*
 - c) *Any other legal or equitable obligation other than the quality of the product at the time of despatch.*
2. *Any queries about specification use or application should be directed to our technical service department immediately.*
3. *This exclusion clause does not operate to exclude any warranty that by law may not be excluded.*



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