

HYCHEM DECKPROOF PU

Trafficable waterproof membrane

DATA SHEET



HYCHEM
EPOXY SYSTEMS

HYCLAD PU is a flexible, crack bridging membrane system, suited to a wide variety of waterproofing applications. The product system consists of a primer, a base coat, an intermediate coat and a topcoat. For principally foot traffic, the intermediate coat can be eliminated.

The primer provides adhesion, the base coat provides flexibility and the top coat provides UV resistance and colour stability. The additional intermediate coat provides maximum abrasion resistance where this is required. Selected aggregates are also used to achieve required antislip properties.

DECKPROOF PU is a companion product to DECKPROOF PA, a polyurethane methacrylate. It provides a tougher wear resistant finish at the expense of slower return to service.

TYPICAL APPLICATIONS

DECKPROOF PU based membrane systems are suitable and recommended for:

- The waterproofing of residential balconies and rooftops
- The waterproofing of car park decks
- The waterproofing of containment structures such as bunded material storage
- The waterproofing and protection of stadium terracing
- The waterproofing of industrial structures and airconditioning plants

SYSTEM PRODUCTS

DECKPROOF PU Primer

11.3 litre pack, comprising 8 litres Part A and 3.3 litres Part B

DECKPROOF PU Base Coat

18.9 litre pack, comprising 2.6 litres Part A and 16.3 litres Part B

DECKPROOF PU Intermediate Coat

16.6 litre pack, comprising 13.3 litre Part A and 3.3 litres Part B

DECKPROOF PU Topcoat

18.9 litre pack, 1 component

CHEMICAL RESISTANCE

The HYCHEM Deckproof PU membrane system has excellent exposure resistance to dilute acids, alkalies and salt solutions, as well as the range of petroleum based oils and solvents.

FEATURES AND BENEFITS

HYCHEM Deckproof PU has exceptional toughness, abrasion and wear resistance consistent with state of the art polyurethane technology.

The product has excellent crack bridging capabilities, is odourless and solvent free. It can be used on asphalt and timber as well as concrete. Application characteristics are excellent, with a pot life that gives a good balance between application time and early walk on characteristics.

SPECIFICATION GUIDELINES

HYCHEM DECKPROOF PU is applied in 2 ways:

1) Light-Medium Duty	
Primer at 6-7 sqm/litre	Providing 150 microns dft
Basecoat at 1.6 sqm/litre	Providing 600 microns dft
Topcoat at 5 sqm/litre	Providing 200 microns dft
Light broadcast & backroll	Total nominal 1,000 microns dft
2) Heavy Duty - Primer at 6-7 sqm/litre	
Basecoat 1.6 sqm/litre	Providing 150 microns dft
Basecoat 1.6 sqm/litre	Providing 600 microns dft
Intermediate coat at 1.6 sqm/litre	Providing 600 microns dft
Broadcast to beach finish	Providing 250 microns dft
Topcoat at 5 sqm/litre	Providing 200 microns dft
Total topping depth	Nominal 2,000 microns dft

TECHNICAL CHARACTERISTICS

PROPERTY	PRIMER	BASECOAT	INTERMEDIATE COAT	TOP COAT
Product type	2 part polyurethane	2 part polyurethane	2 part polyurethane	2 part polyurethane
Solids content	100%	100%	100%	80%
Viscosity	1200 MPas	1200 MPas	2000 MPas	3000 MPas
Pot life	30 minutes	30 minutes	45 minutes	Not applicable
Tack free time	2 hours	2 hours	24 hours	1-5 hours
Shore D hardness	77	75 Shore A	75	50
Elongation	10%	750%	10%	320%
Tensile strength	26 MPa	15 MPa	29 MPa	22 MPa

APPLICATION GUIDELINES

Surface preparation

Surfaces to which Deckproof PU is applied must be sound, clean and dry and free of oils and curing agents capable of preventing full adhesion to be obtained.

Normal preparation techniques such as surface diamond grinding is acceptable. Moisture content of the surface is to be below 4% and there must be no rising damp.

Mixing

- Empty entire contents of component A into component B.
- Mix for 2 minutes using a paddle fitted to a drill. Keep revs around 400-600 rpm and avoid entraining air. Ensure that contents on the side of the pail are incorporated by scraping the sides and remixing.

Detailing

Cracks larger than 0.6mm need to be treated as joints.

- Firstly, rout out all such cracks to a width of 6mm and fill with HYCHEM HYFLEX NS and allow to cure.

Priming

- Apply around 6-7 sqm/litre using a roller or airless spray.
- Spread dry quartz aggregate into the wet primer mix at a rate of 0.25 kg/sqm. This coarse surface aids adhesion of the next coat.
- Allow the primer to cure for 1-2 hours before proceeding with base coat.
- On asphalt, spread primer at 5 sqm/litre and allow to cure for 3-4 hours.
- After the primer has cured apply a brush coat of the base membrane to all smaller cracks at a thickness of around 0.8mm.

Base Coat

- Apply the base coat with a fine 1.5mm knotted trowel or a squeegee and allow to cure. The floor is now ready for application of the top coat if a medium traffic system is desired, or an application of intermediate coat for a heavy duty system.

Intermediate Coat

(For light to medium duty this application can be eliminated)

- Apply a coat of intermediate at around 600 microns using a knotted 1.5mm trowel or a squeegee.
- Cast the surface with quartz aggregate to a beach finish using 30-60 mesh quartz.
- Allow to cure, vacuum off excess and seal with topcoat.

Top Coat

This is applied as a UV stable and weather resistant sealer with a gloss finish. Being a one part, moisture cure material there is no need to mix component parts. The material is available in a variety of colours as well as clear. The sealer has high flexibility and excellent chemical resistance.

Spread the material at an application rate of 4-5 sqm/litre to seal in all antislip aggregate. Rollers should be high quality and lint free.

Note: This material contains solvent, all sources of ignition need to be avoided.

Final Cure

For pedestrian and vehicular traffic a period of 24 hour normally suffices. Very low humidity can extend this period. For ultimate exposure to chemicals a full cure of 7 days is recommended.

LIMITATIONS OF APPLICATION

Polyurethane systems are moisture reactive. They must not be applied over damp surfaces or with active moisture vapour transmission.

New concrete needs to be cured for 28 days. Do not apply under 5°C.

HEALTH AND SAFETY

Products may be injurious to health through breathing, skin absorption and ingestion. All users of this product must read the material safety data sheet (MSDS) prior to commencement.

In case of skin contact, wash thoroughly with soap and water.

For eye contact, immediately flush with plenty of water for at least 15 minutes and contact a physician.

For respiratory problems, remove individual to fresh air.

CLEAN UP

Uncured - remove spillage using a cloth moistened with Xylene (HYCHEM Solvent X).

Cured product can only be removed mechanically.

Clean up spillages by casting an absorbent material and remove waste according to regulations.

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.