

# HYCLAD E

Epoxy polyurea membrane

DATA SHEET



**HYCHEM**  
EPOXY SYSTEMS

HYCLAD E is a flexible hybrid product, designed to combine the easy handling properties of epoxy with the high elasticity and good impact resistance of polyurea products.

## USE

HYCLAD E is designed for use as a crack bridging, waterproof membrane in situations where the spontaneous flash cure of polyurea membranes is not desired and the high abrasion and wear resistance of polyurethane membranes is not required.

HYCLAD E, unlike polyurea and polyurethane membranes, can be applied to dry concrete surfaces without the use of a primer.

## FEATURES AND BENEFITS

- Long pot life, easy hand & spray application
- High elasticity
- Good adhesion to concrete
- Compatible with most coatings
- Convenient mix ratio
- Impact resistant
- High resistance to water and alkaline solutions
- Moderate resistance to dilute mineral acids
- Moderate resistance to petroleum oils & fuels

## TYPICAL APPLICATIONS

- Waterproofing concrete roof decks
- Waterproofing plant rooms
- Waterproofing water features
- Waterproofing balconies & patios
- Waterproofing planter boxes
- Sealing cracked concrete structures

## PHYSICAL PROPERTIES

The values below are indicative only based on the binder and do not represent a specification

Mix Ratio - volume	2:1 resin to hardener
Specific gravity	1.15:1
Pot life	60 minutes
Tack free time	6-8 hours
Cure time	72 hours
App. temperature	5 to 30°C
Service temperature	-30 to 50°C
Tensile strength	4 MPa @ 20°C
	10 MPa @ 0°C
	20 MPa @ -20°C
Elongation	20°C - 35%
	0°C - 60%
	10°C - 80%
	20°C - 100%
Hardness ShoreD	35
Adhesion	Dry - 3 MPa (c/f)
	Wet - 1 MPa (a/f)

## CHEMICAL RESISTANCE

The chemical resistance of a material can be determined by the wt gain of a sample immersed in the chemical. The greater the wt gain, the poorer the resistance of the material. The table below gives the resistance of HYCLAD E relative to other available epoxy binders. A value of 100 is equal to an absorption gain of 3% after 7 days immersion.

10% Hydrochloric acid	110	50% Sodium Hydroxide	10	10% Ethyl alcohol	125
Petrol	800	Xylene	2000	Water	50

## APPLICATION GUIDELINES

### Surface Preparation

Concrete surfaces must be clean and free of oils and form release agents. Damp surfaces need to be primed with HYCHEM E100.

### MIXING

In a clean container, mix HYCLAD E Resin & Hardener @ 2:1 by volume using a mechanical stirrer at slow speed. Move the mixer around from side to side and top to bottom and scrape the sides of the mixing vessel to ensure thorough mixing.

### APPLICATION

Apply HYCLAD E at a coverage of 1 litre/sqm by airless spray using a wet on wet technique or apply by brush or roller in 2 to 3 coats to ensure a coverage of 1mm wet film thickness. For surfaces showing extensive surface cracks, repair cracks in excess of 300 microns by routing out the crack and filling it with a paste of HYCLAD E and fine talc filler.

### TOP COAT

**HYCLAD E will discolour and lose gloss on exposure to sunlight. To avoid this, it is recommended to apply a coat of HYCHEM WP95, UV resistant coating.**

### CLEAN UP

Xylene or Solvent BGE can be used for cleaning tools and equipment before the mixed compound begins to harden.

### COVERAGE

1 litre of HYCLAD E will cover 1 litre.

### PACKAGING

Available in 8 Litre and 40 Litre packs.

### SHELF LIFE

12 months from date of manufacture, stored under shelter at 25°C in original un-opened container.

### SAFETY PRECAUTIONS

Epoxy polymer products may cause allergic reactions through skin contact. Goggles and protective gloves and clothing should be worn at all times. Ensure that there is adequate ventilation and air flow and avoid breathing the vapour.

## WARNING - ENVIRONMENTAL CONDITIONS

Epoxy products are sensitive to the prevailing temperature and humidity at the time of application.

- High temperatures will shorten the pot life and application may become difficult due to insufficient time being available to lay the product.
- Low temperatures and high humidity will result in the epoxy reacting with surface moisture to produce a white powdery finish. To avoid this, epoxy coatings and toppings must not be applied if surface temperatures are below the dew point while the material has not yet cured.
- The white surface finish is only an aesthetic consideration and does not affect the performance of the material.
- Chemical spillage of acids and sanitizing agents may attack the pigments used in the coating and result in discolouration.
- Differing epoxy products have differing resistance to chemicals, always ensure that the correct product is chosen for the service environment to be encountered.

### **NOTE: Customer responsibility**

*The technical information and application advice here given 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 products 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.*

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