

# HYCOTE 175

## ThistleBond

A Division of E. Wood Ltd., U.K.



ThistleBond 'Hycote 175' is a high performance solvent free, 100% solids coating designed for use where exceptional resistance to chemical attack is required.

ThistleBond 'Hycote 175' is based on a special phenolic epoxy resin and a polyamine curing agent system which produces a highly cross linked polymer network. It forms a highly complex cross linked polymer structure over the coated surface. The Unique system prevents "permeation" (the cross linked polymer matrix structure prevents ingress & penetration of chemical & moisture molecules) and subsequent attack of coating by highly aggressive chemicals, allowing the system to be used whenever superior chemical resistance is required.

ThistleBond 'Hycote 175' offers excellent adhesion to steel and concrete, has outstanding resistance to a wide range of industrial chemicals even under total immersion conditions and is ideal for tanks, pipe work, containment decks, bund areas, de-sulphurisation units etc.

## SURFACE PREPARATION & APPLICATION PROCEDURE

### Steel Surfaces

All steel surfaces to be coated should be abrasive blast cleaned to a minimum SA 2.5 in accordance with BS7079 Part AI:1989 , near white metal finish. All loose abrasive dust and debris must be blown clear or vacuum cleaned away. Hydro cleaning may be required to remove absorbed salts / chemicals and neutralization is to be done prior coating. Coating should be done within 2-4 hours of blasting.

### Concrete Surface

All concrete to be coated should either be lightly abrasive blast cleaned using wet or dry abrasive techniques or alternatively high pressure water jetting. Concrete should have moisture content of 7% prior to coating. Prepared concrete to be primed with ThistleBond 'Low Viscosity MP Primer' or 'MA3 Tie-Coat' as per mixing instructions.

### Application Procedure

Steel / Concrete surface should be prepared as mentioned above. Ensure humidity is less than 90% and temperature above 20°C at the time of application. 'Hycote 175' to be mixed in 2:1 ratio, stir contents thoroughly until homogeneous mixing takes place. 'Hycote 175' can be applied by good / short bristle brush. For larger areas, it can be applied by airless spray equipment. The mixed material should be used within 30 minutes. For larger areas part mixing is advisable.

### Durability

Continuous research & development in the area of chemical corrosion protection resulted in developing 'Hycote 175'. A proper application of this product will extend life of equipment from the effect of corrosion substantially. Recommended thickness is 300 microns but increasing thickness will increase the life in multiples.

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### PHYSICAL PROPERTIES

Abrasion Resistance	60 mg loss / 1000 cycles
ASTM D4060	CS17 wheel 1 kg load
Impact Resistance	2.2 joules
ASTM G14	(19.5 in / lbs)
Dry Heat Resistance	177 °C
ASTM D248	
Salt Fog Resistance	10000 hours
ASTM B117	unaffected exposure
Humidity Resistance	5000 hours
BS 3900 Part F2	unaffected
Water vapour Permeability	4.69 x 10 <sup>-6</sup> perm.cm
ASTM D1653	
Recommended Thickness	300 microns
Coverage per kilogram	2.9 m <sup>2</sup> @ 300 microns

### PHYSICAL CONSTANTS

Mixing Ratio	Resin	Hardner
By volume	2	1
Appearance	Resin	Hardner
Liquid	Viscous Coloured	Clear Amber
Drying Time @ 20°C		
Usable Life	30 Minutes	
Initial Set	4.5 Hours	
Full Cure	7 Days	
Volume Solids	100%	
VOC	Nil	
Shelf Life	5 years	
Food Contact	Meets USDA requirements	

### CHEMICAL RESISTANCE \*

Sulfuric Acid up to 98%	Excellent
Hydrochloric Acid up to 35%	Excellent
Hydroflouric Acid up to 20%	Good
Phosphoric Acid up to 75%	Excellent
Nitric Acid up to 30%	Good
Sulphur Dioxide Wet	Excellent
Chlorine	Satisfactory
Acetic Acid 0-20%	Good
Sodium Hydroxide	Excellent
Nitrous Acid Dilute	Excellent
Hydrobromic Acid Dilute	Excellent

### SUPPLY INFORMATION

**Stock No** : TPC675

**Description** : Hycote 175

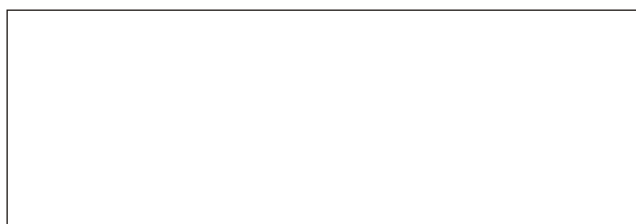
**Pack Size** : 5 kg

\* for further information see Chemical Resistance Chart

### RECOMMENDED APPLICATIONS

- HCL, H<sub>2</sub>SO<sub>4</sub> and other corrosive acid storage tanks internal surface area coatings
- Protective coating for the external surface area of storage tanks from corrosive chemical atmosphere, chemical fumes, chemical gas exposure
- Corrosion protection coating of acid spillage areas over metal surface, concrete surface
- Protective coating of pipe lines internal areas
- Protective coating of containment decks, bund areas
- Protective coating of desulphurisation unit areas

### Distributor catering to your needs



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