



**HYCHEM**  
EPOXY SYSTEMS

# HYCRETE PU-TC(m)

Topcoat for polyurethane concrete

Hycrete PU-TC(m) is specially designed as a topcoat for Hycrete PU-SL(m) and TR flooring systems. It can also be used as a stand alone concrete coating. It has excellent chemical resistance properties.

Hycrete PU-TC(m) is used to seal in the aggregate in a broadcast polyurethane cement topping. It is also used as a non-slip coating over a Hycrete PU-SL(m) smooth base.

## FEATURES AND BENEFITS

- Adjustable rate of cure – accelerator can be added for low temperature cure.
- Chemical resistant – excellent resistance to acids and alkalis.
- Low VOC emission – environmentally friendly.
- Low odour – does not taint food.
- Matt finish.
- Colour availability – available in a range of colours.

## INDUSTRY APPLICATIONS

- Food and beverage production facilities
- Factory production floors
- Stock and plant rooms
- Workshops
- Ammonium nitrate storage

## TECHNICAL CHARACTERISTICS

Mixing ratio by weight – corresponds to packaging in kg	
• A : B	1 : 1
• A : B : C	1 : 1 : 1.25
Pot life @ 25°C	Approx. 20 minutes
Application temperature (min. 3°C above dew point)	10 to +30°C
Overcoating @ 25°C	12-24 hours
Cure time @ 25°C:	
• foot traffic	12-20 hours
• heavy traffic	2 days
• chemical exposure	7 days
Adhesive strength	> 1.5 MPa
Temperature resistance	-20°C to 120°C
Hardness (Shore D)	80 (7 days)

CHEMICAL RESISTANCE	
<b>Acids</b>	
Acetic acid	20%
Boric acid	4%
Chromic acid	10%
Citric acid	10%
Formic acid	5%
Hydrochloric acid	10%
Lactic acid	25%
Phosphoric acid	25%
Sulphuric acid	25%
<b>Alkalis</b>	
Ammonium hydroxide	5%
Peroxide	10%
Potassium hydroxide	10%
Sodium hydroxide	50%
<b>Other</b>	
Diesel	
Petrol	
Sugar solutions	
Ammonium nitrate	

## SUBSTRATE PREPARATION

### CONCRETE COATING

The concrete substrate should be firm, clean and dry. The compressive strength of the surface must be a minimum of 25 MPa and the surface tensile strength a minimum of 1.5 MPa.

New concrete is to be a minimum of 7 days old. The surface of the concrete will need to be mechanically prepared by either diamond grinding, shot blasting or scarifying. All weak and loose material, surface laitance, contaminants and coatings or curing compounds must be completely removed. It is preferred that the prepared surface has a profile to ensure both excellent chemical and mechanical adhesion.

### MIXING

Mix components A and B together for 30 seconds. Add aggregate bag and mix until a smooth consistency without lumps is achieved, 1-2 minutes should be sufficient.

## APPLICATION GUIDELINES

Do not apply over damp or wet surfaces. Do not apply where there is water vapour transmission.

### Non-slip finish

- Apply to substrate and broadcast anti-slip aggregate into the wet surface and allow to cure. The size of the aggregate that is used depends on the level of slip resistance required.
- Apply a second coat of Hycrete PU-TC(m) to seal the surface. Keep in mind not to flood the surface so much as you lose the slip resistant effect of the aggregate.
- Hycrete PU-TC(m) may also be applied over either a self-levelling or broadcast Hycrete PU-SL(m) topping.

## COVERAGE

The following information is a guide only.

Over a smooth surface the expected coverage is about 4-5 m<sup>2</sup>/litre. When applied over a broadcast surface the consumption will depend on the profile, however, approximately 2 m<sup>2</sup>/litre can be expected.

## SAFETY PRECAUTIONS

Wear gloves, eye protection, masks and overalls during mixing and application.

## PACKAGING

Hycrete PU-TC(m) is a 3 component product consisting of a resin, hardener and blended fillers. This is usually sold as a neutral kit requiring a 175g pigment pack.

Component breakdown:

Part A	1 kg
Part B	1 kg
Part C Aggregate	1.25 kg

The mixed product will yield approximately 2.35 litres.

## LIMITATIONS

Hycrete PU-TC(m) is an industrial flooring finish which may discolour on exposure to UV light from the sun or an artificial source. The severity of discolouration is dependant on colour choice. Any such discolouration has no effect on the performance of the product.

## SHELF LIFE

This product has a shelf life of 9 months from date of manufacture, stored away from sunlight at 25°C in original un-opened container.

## WARNING - ENVIRONMENTAL CONDITIONS

Temperature and the surrounding atmospheric conditions will play a part in the curing process of all epoxy products. Under conditions of low temperatures and high humidity the final cured surface finish can be adversely affected potentially resulting in poor gloss retention, discolouration over time, poor overcoatability and intercoat adhesion. Quite often these conditions will result in the formation of a white film over the surface often evident after contact with water. This chemical reaction with the atmosphere is commonly referred to as "amine bloom" or "amine blush".

If this occurs then the existing coating will need to be abraded to completely remove the affected surface to ensure the adhesion of subsequent applications. In some cases partial or complete re-priming may be necessary.

Attention also needs to be paid to the substrate temperature which should be at least 3°C and preferably 5°C above the dew point during the curing phase.

Industry standards recommend the accurate recording of times and dates, batch numbers, consumption rates and environmental conditions including substrate and air temperatures, humidity levels and dew point readings during both the application and curing processes. Full material warranties cannot be provided unless all the relevant data has been recorded accurately.

If in doubt consult the Hychem technical department for advice.

### **NOTE: Customer responsibility**

*The technical information and application advice given here 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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*If unsure contact Hychem for further technical advice before proceeding.*