



Performance Through  
Technology and Service

Date Issued	
Replaces	

## DATA SPECIFICATION

### PS-E002 COATING A CONCRETE SURFACE WITH EPOTEC HIGH BUILD EPOXY PAINT

**Introduction** For the coating of an in ground swimming pool, refer to our 'EPOTEC High Build Epoxy Information Sheet'.

**Procedure** For maximum adhesion to concrete the surface must be clean (free from oil and grease), dry and sound. Concrete theoretically takes 28 days for a full cure, and at this stage the moisture content is 4 - 6%. If the concrete has been power floated the surface becomes very smooth as the fine particles of cement etc. (laitance) float to the surface and are generally very brittle and can be powdery. The surface must therefore be mechanically or chemically treated to provide a sound profile for the coating to adhere to. The following are the key steps for preparation:

- 1. SOUNDNESS** Remove defects from the surface. E.g. Lumps – grind off until smooth, cracks – fill with either cement plaster or epoxy filler. Refer to PS-C005 Repair of Concrete Defects.
- 2. CLEAN AND DRY** Remove all dust etc. by sweeping then using a vacuum cleaner. All oil and grease should also be removed. Refer to PS-C006 Making Concrete Clean and Dry, and PS-C007 Making Concrete Oil/Grease Free.
- 3. CONCRETE ETCH** It is preferable to etch the concrete with an acid wash to provide a key or profile for good adhesion. Use 10% Hydrochloric Acid solution. Water blast down with adequate water approximately 30 minutes after the acid has stopped reacting. Refer to PS-C001 Acid Etching of Concrete with Hydrochloric Acid.

4. Allow to dry.
  5. MIX CAREFULLY the EPOTEC pack. The steps being: Add the hardener (500 grams) to the base can (2.5kgs in a 4 litre can). Using a flat stick mix well – Taking particular care to mix in the sides and bottom. Do not induce air bubbles into mix. Allow to stand for 10 minutes. Re-mix briefly. A good idea when a large number of units requires mixing is to write with a marker pen the time when ready for use.
  6. Where extra penetration of the EPOTEC is required on say weak or more dense concrete the 'mixed' EPOTEC can be thinned with approximately 200mls of EPOTEC thinner. Stir with the same stick. Do NOT add the thinner until the 10 minutes stand period is complete.
  7. APPLICATION Pour the aged mixed EPOTEC into a roller tray, then using a smooth roller (i.e. Draylon 10mm nap or Mohair 6mm nap (Number 4 Roller)), roll out the material using a full roller, overlapping the previous application. Aim for approximately 125 microns for each coat. A standard brush can be used for cutting in before rolling the main areas, and also for laying off the slight texture finish that can be left by the roller. Do NOT go back and work the coat after 3 - 5 minutes have elapsed since rolling.
  8. POT LIFE This is the approximate time you have before the mixed material becomes unworkable. This time will vary depending on the colour, ambient temperature and the relative humidity on the day. Approximate times are:

15°C Ambient	3.5 – 4 hours
25°C Ambient	1 – 2 hours.
- (over)

**PS-E002  
COATING A CONCRETE SURFACE  
WITH EPOTEC HIGH BUILD EPOXY  
PAINT (CONTINUED)**

9. Do NOT attempt to coat a surface when the ground/ambient temperature is below 13°C as the cure will not proceed leading almost certainly to blooming or some other problem. At 15°C @ 50% Humidity:  
Touch Dry: 8 – 10 hours  
Re-coat: Minimum 16 hours  
Full Cure: 7 days.

At higher temperatures the cure rate is increased. E.g. 25°C @ 50% Humidity:  
Touch Dry: 3 – 5 hours  
Re-coat: Minimum 8 hours  
Full cure: 7 days.

If bad weather prevents completion of the second coat for more than 72 hours, the first coat will need to be lightly sanded to improve the mechanical keying. (Use 60 grit paper).

10. **COVERAGE** This varies depending on the roughness of the surface. Assuming the surface is a new etched surface, approximate rates are:

First Coat: 12–15m<sup>2</sup> per 3kg pack  
Second Coat 18m<sup>2</sup> per 3kg pack.

**Health and Safety** Read the Material Safety Data Sheet (MSDS) and information booklet. Keep away from heat and open flames, keep can closed when not in use. Avoid breathing vapour, use with adequate ventilation. Avoid contact with skin and eyes. If skin contact occurs use warm soapy water to remove. Do NOT use thinner to clean the skin.

**Refer to following specifications:**

- PS-C001** Acid Etching Concrete with Hydrochloric Acid.
- PS-C006** Making Concrete Clean and Dry
- PS-C007** Making Concrete Oil/Grease Free.
- PS-E004** Re-Coating an Aged Epoxy Coating with EPOTEC Over Concrete
- PS-E005** Typical Problems with EPOTEC Application
- PS-E006** EPOTEC Frequently Asked Questions
- PS-E007** Non-slip EPOTEC finish.

ISSUE NO: 02  
ISSUE DATE: 12-12-02