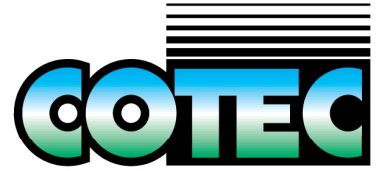




# High Performance Paint Specification



## PS-E002

# COATING A CONCRETE SURFACE WITH EPOTEC HB AND WB EPOXY PAINT

### INTRODUCTION:

For the coating of an in-ground swimming pool, refer to our 'EPOTEC High Build or EPOTEC WB 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 or Sulphamic acid solution. Water blast down with adequate water after the acid has stopped reacting (approx. 5 – 10 minutes). Refer to PS-C001 Acid Etching of Concrete with Hydrochloric Acid.
- 4 Allow to dry.
- 5 **MIX CAREFULLY** the EPOTEC HB 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. EPOTEC WB is mixed in a similar manner.
- 6 Where extra penetration of the EPOTEC HB 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. We recommend the use of EPOTEC WB Sealer on all cement and plaster pools as this is a more effective penetrating and binding sealer.
- 7 **APPLICATION** Pour the aged mixed EPOTEC HB 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. EPOTEC WB will need to be applied at a higher wet film and so aim for 200 – 250 microns off the roller or spray unit. The use of wet film gauges to ensure correct thickness is recommended. PTO

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## 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:

EPOTEC HB:	15°C Ambient	3 – 4 hours
	17°C Ambient	2 - 3 hours
	25°C Ambient	1 – 2 hours.
EPOTEC WB:	17°C Ambient	3 – 4 hours
	25°C Ambient	2 – 3 hours.

## 9 For EPOTEC HB

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 speeds up. E.g. 25°C @ 50% Humidity:

Touch Dry:	3 – 5 hours
Re-coat:	Minimum 8 hours
Full cure:	7 days.

## For EPOTEC WB

EPOTEC WB Sealer can be applied at lower temperatures and will cope with some dampness in the concrete. At lower temperature it will take these coatings longer to reach cure so allowance must be made. EPOTEC WB: Air and substrate temperature needs to be above 10°C and is not effected by the relative humidity other than obviously very high humidity will slow the evaporation of water from the coating. At 25°C and 65% RH

Touch Dry:	4-5 hours
Recoat time:	24 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 160 - 180 grit paper).

## 10 COVERAGE

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

EPOTEC HB:	First Coat:	12–15m <sup>2</sup> per 3kg pack
	Second Coat	18m <sup>2</sup> per 3kg pack.
EPOTEC WB:	Sealer	5-15m <sup>2</sup> per litre
	Top coats	20m <sup>2</sup> per 5 kg 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 THE FOLLOWING SPECIFICATIONS FOR RELATED INFORMATION:**

PS – C001	Acid Etching of 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 Avoidable Epotec Problems
PS – E006	Epotec Frequently Asked Questions
PS – E007	Non-Slip Epotec Finish

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