High Performance Paint
Specification

PS-E002
COATING A CONCRETE SURFACE WITH EPOTEC NT EPOXY AND EPOTEC AQUA 1K PAINT

INTRODUCTION:
For the coating of an in-ground swimming pool, refer to our 'EPOTEC NT or EPOTEC Aqua 1K' data sheet.
In all cases where EPOTEC is being used over new, freshly prepared concrete or old concrete that has been stripped back to bare we recommend the use of CONCRETE WB EPOXY SEALER to help get maximum adhesion and film build of the subsequent top coats.

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. 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 NT pack. The steps being: Add the hardener (pack B) to the base can (large can pack A). Using a flat stick mix well – taking particular care to mix in the sides and bottom. We recommend that a low speed power mixer (or ribbon blade on a drill) is used as epoxies are very difficult to get a homogeneous mix. Do not induce air bubbles into mix. It is a good idea to re mix each time some paint is poured to the roller tray. When mixing large number of cans, write the time it was mixed on the can so the cans are used in the right sequence.

6 We recommend the use of CONCRETE WB SEALER on all cement and plaster pools as this is a more effective penetrating and binding sealer.

7 APPLICATION:
Pour the mixed EPOTEC NT 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 at least 125 microns for each coat. A standard brush can be used for cutting in before rolling the main areas. Do NOT go back and work the coat after 3 - 5 minutes have elapsed since rolling. 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 NT (standard hardener):	13°C Ambient	1.5 hours.
	20°C Ambient	1 hour.
	25°C Ambient	45 min.
EPOTEC NT (Hi temp hardener):	20°C Ambient	1.5 hours.
	25°C Ambient	1.5 hours.
	30°C Ambient	80 min.

9 For EPOTEC NT

Do NOT attempt to coat a surface when the ground/ambient temperature is below 13°C as the cure will slow and lead to blooming or other problems.

At 20°C @ 50% Humidity:

Touch Dry:	5 - 7 hours
Re-coat:	Minimum 12 hours
Full Cure:	7 days.

At higher temperatures the cure rate speeds up.

At 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 160 - 180 grit paper).

10 For EPOTEC AQUA 1K

Apply paint in temperatures above 10°C and fine weather. Aqua dries similar to house paint so in good conditions it should be dry to touch in 2 – 3 hours. Mix well to ensure all pigment is well dispersed. Pour into paint tray and use water based 8 – 10mm nap roller. Do not thin the paint. Do not over spread the coating, aim for 100 micron per coat wet. The thinner the coating the faster the wear rate.

No pot life, wash up in water and re seal the unused paint back in the original can.

11 COVERAGE

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

EPOTEC NT:	First Coat:	20 – 25m^2 per 5kg pack
Concrete WB Sealer:	Sealer	5-15m^2 per litre
EPOTEC AQUA 1K:	First Coat:	8 – 10m^2 per litre

HEALTH AND SAFTEY:

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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