



Performance Through
Technology and Service

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DATA SPECIFICATION

TYPICAL AVOIDABLE EPOTEC PROBLEMS

PS-E005.1 TOTAL OR RANDOM STICKY PATCHES

Introduction The PS-E005 series is a collection of the most common questions I have answered, which usually relate to simple mistakes made during the use of EPOTEC. Unfortunately I have had to list the problems by the end result, which is usually a disaster and becomes a problem to rectify. Therefore the key issue is to DO IT PROPERLY, ONCE.

Problem EPOTEC is a two component epoxy coating system. The epoxy resin component requires the correct amount of hardener to achieve the final cured proportion. Too little or too much hardener will cause a problem.

Unlike a polyester filler (bogg), the hardener must be well mixed with the resin, then left for approximately 10 minutes to allow the reaction to proceed. If not mixed completely the resin proportions will remain sticky and in extreme cases this will NEVER cure.

Correction All sticky areas need to be completely removed, which is a very messy, difficult task.

The procedure is:

1. Use a broad knife or similar to scrape out the uncured/sticky areas.
2. Using fresh rags soaked in EPOTEC thinners, wash the areas to ensure all liquid areas are free from colour. (Use rubber gloves which do not dissolve in solvent).

3. Allow to dry for 2-3 days to ensure ALL solvent has evaporated from the substrate (concrete especially takes time). Usually if you can smell solvent, it has not evaporated.

4. Use a grinder or sandpaper to roughen the areas surrounding that have cured hard.

5. Remove all dust from the area.

6. Apply two coats of EPOTEC.

Note

* EPOTEC solvent is flammable so avoid contact with naked flames, sparks or electrical ignition sources.

* Always wear protective apparatus such as gloves, dust mask etc.

* MIXING RATION is 5:1 by weight. This can easily be done using a kitchen cooking scale e.g. 1000 grams of resin required 200 grams of hardener.

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

TYPICAL AVOIDABLE EPOTEC PROBLEMS

PS-E005.2 SURFACE IS CURED BUT THE FILM IS SOFT UNDERNEATH

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Problem There may be areas that have cured normally, but in some thick areas the surface is cured but the middle of the film is soft. Running a finger over the surface will show the surface deforming.

Reasoning The curing mechanism of the EPOXY is such that if the film is applied very thick (greater than 500 microns, 0.5 mm), the rate of cure in the centre of the film is reduced dramatically.

EPOTEC is NOT a satisfactory GAP filler. Always apply two coats if the film build needs to be greater than 250 microns.

Correction Unless the ambient temperatures are very cold (less than 10°C), the soft film will harden. This may take 1 – 2 weeks which is the time recommended to allow before filling.

PS-E005.3 WHITE BLUSHING ON THE SURFACE.

Problem: White blushing / blooming is seen on surface, soon after product cures.

Reasoning: This is the result of unattached hardener reacting with carbon dioxide and moisture from the air. It usually occurs during very humid conditions or after rain falls onto partially cured Epotec.

The dew point also plays an important consideration. If ambient temperature is 13 C, relative humidity is 60% then the dew point is 4 C. At ambient temp of 21C, the dew point rises to 13 C. Consequently if Epotec is applied to a surface at either 4 C or 13 C, in the above situation, dew may form causing blushing on the partially cured material.

Minimisation:

When undertaking Epotec in shady areas, or those in contact with the ground, which is often cold, great care is needed to ensure the dew point is not approached or broken. Mixing the Epotec, THOROUGHLY, will reduce the chances of un reacted hardener being available.

Allow mixed material to STAND for 10 minutes, (plus) ensures better reaction with the resin.

For inside applications, GOOD ventilation to remove humid air will help. Prevent RAIN, from landing on the curing surface for min of 6 hours

ISSUE NO: 03
ISSUE DATE: 26-04-04