



INFORMATION DATA

Storage, Mixing and Application Conditions Technical Data TD300



EFFECT OF TEMPERATURE CHANGES

Reepol systems have been designed to produce the optimum application and physical properties at an ambient application temperature between 15 and 25°C. When conditions are outside 15-25°C and it is not practicable to provide a suitable temperature, an awareness of the changes in application properties is needed.

TEMPERATURE BELOW 15°C

As the ambient temperature drops below 15°C, the viscosity of the liquid components increase. The lower the temperature the thicker the resin becomes.

Roller and brush-applied resins become more difficult to apply and may not flow out satisfactorily. Equally it may be difficult to achieve coverage rates and excess products may be used. Air may not be fully released leaving pinholes or craters.

Trowel applied systems become stiffer and difficult to trowel flat without applying heavy pressure, which can cause trowel burns, and the possibility of bubbles due to trapped air is more likely. If closing the surface of the screed is difficult, the chances of open porous areas are more likely.

Cure times are extended and at temperatures below 5°C the curing reaction may cease completely until a suitable temperature is reached. Although the resin will eventually cure at low temperatures, the polymer reaction is not as thorough as the original design and physical and chemical properties are reduced.

The general 'sales' concept that "the product will cure, even at almost freezing" should be regarded with extreme caution for, as a general rule, resin systems are designed to be applied at an ambient average of 20°C.

The use of solvents to reduce viscosity at low temperatures is widely accepted by many individuals as a normal practice. This is not so when the product has been designed as a solvent free system. Solvent, especially, with a low evaporation rate will create many problems, in many instances total failure and at the least a system, which will not meet the relevant specification.

To ensure optimum properties the use of any form of dilution must be eliminated on any system that is not designed to be thinned down.

TEMPERATURE ABOVE 25°C

Just as low temperature increases the viscosity of resins, high temperature reduces the viscosity and the resin becomes thinner.

Roller and brush applied resins become very easy to apply and the tendency is to push out the resin as far as possible. This could result in poor colour cover and reduced thickness.

Trowel applied systems become easier to trowel but the resin could drain to the bottom of the screed if not compacted properly.

Cure times are reduced but the workable time of the mixed resins is also reduced. This can result in resin going hard before it is applied and difficult in joining together separate mixes.

EFFECT OF HIGH HUMIDITY

Reepol solvent free epoxy resin systems have been formulated to resist water staining which is caused by the formation of a salt when water comes in contact with the resin surface before the cure is complete. The resultant salt may not show immediately and the effect is that of a slightly matting surface. When the surface is eventually washed with water a white water stain occurs.

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MIXING

Reepol systems have been accurately pre-measured to provide an exact chemical reaction. Do not attempt to change the mixing proportions, as a weak product will be produced. Thorough mixing of the hardener component with the resin component will ensure a product with optimum properties. Failure to achieve a homogeneous mix can result in soft spots.

Please refer to individual product data for mixing instructions.

STORAGE

Reepol resin systems have a shelf life in excess of 12 months if stored in a dry warm environment.

All Reepol products should be stored at a constant temperature between 10° and 25°C to ensure the products remain in prime useable condition. Storage of products outside this range or repeated fluctuations in storage temperature can reduce the storage life of resin based products.

USEFUL TIPS

To ensure that you get the optimum of properties and surface finish, remember the following:

- 1) Ideal application temperature is 15-20°C, write it into the conditions of your specification.
- 2) Store materials overnight in a warm place.
- 3) Use heaters if the temperature is low.
- 4) Keep cool if temperatures exceed 30°C.
- 5) Avoid high atmospheric humidity, particularly areas where plaster has just been applied.
- 6) Never alter mixing ratios.
- 7) Mix thoroughly by mechanical means whenever possible.
- 8) If in difficulty please telephone Reepol's Technical Department 01952 588575.



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