

CRYSTIC[®] PRIMECOAT

High Build, Wet-On-Wet Polyester Coating

Introduction

Crystic PrimeCoat is a high build, polyester coating material which allows the rapid surfacing of patterns constructed from wood, MDF, GRP etc. It can be applied wet-on-wet up to a thickness of 1.5mm in one operation without sagging or draining from vertical surfaces.

The material hardens rapidly and when cured can be easily sanded to a very smooth finish. It can then be polished to a surface glossy enough for many applications. Where higher gloss and/or hardness is required, it can itself be surfaced with Crystic GlossCoat. (See separate data sheet).

Crystic GlossCoat can be mixed with Crystic PrimeCoat to improve its surface gloss and gloss retention. Mixing 1 part of Crystic GlossCoat to 1 part of Crystic PrimeCoat will give a significant improvement in gloss, higher proportions of Crystic GlossCoat to PrimeCoat will further improve the gloss.

Application

Crystic PrimeCoat is designed to be spray applied but it can be applied by brush. Spray application will give a more uniform coating requiring much less finishing.

Gravity fed or siphon guns will require a line pressure of 15-60psi (1-4 bar) and a 1.5-3.0mm material nozzle. Bigger nozzles require more pressure and will result in a faster coverage rate. If the pressure is too high for the nozzle size, dry overspray will result. For pressure pot systems use a 10-20psi (0.7-1.3 bar) pot pressure and 40-60psi (2.5-4 bar) line pressure. It is important that the compressed air is free from impurities such as water or oil mist.

Application Guide for Pattern Surfacing

Ensure that the materials and the workshop are at a minimum temperature of at least 15°C; 20°C will give improved results. Curing should not be carried out at temperatures below 15°C. Scott Bader (Pty) Ltd. will not be liable for problems caused by use at lower temperatures than recommended.

Ensure that the plug has been accurately made and is dimensionally stable. To ensure that the Crystic PrimeCoat bonds to the pattern surface, thoroughly sand the surface of the plug with 40-80 grit abrasive paper. Remove surface dust and degrease with an acetone or styrene dampened cloth. If the pattern has a wood grain surface it can be painted with Crystic resin (e.g. Crystic 406PA or 2-406PA) catalysed with 2% Andonoc KP9. This should be allowed to harden before abrading any "raised" grain from the surface.

Mix Crystic PrimeCoat thoroughly before use. If spray application is intended, thin with pure acetone or Crystic GlossCoat Thinners and thoroughly mix until the desired consistency has been obtained. The level of pure acetone or Crystic GlossCoat Thinners can be varied to suit the particular equipment used. 25 parts by weight of pure acetone or Crystic GlossCoat Thinners to 100 parts by weight of Crystic PrimeCoat is a good starting point.

Catalyse with 2% addition of Norox[®] KP9 catalyst. The presence of the suggested level of pure acetone or Crystic GlossCoat Thinners will extend the pot-life to more than 30 mins and it will be possible to spray large areas without fear of gelation in the spray equipment except in very high temperatures.

N.B. Peroxide catalysts are highly reactive and may decompose with explosive violence, or cause fires, if they come into contact with flammable materials, metals or accelerators. For this reason they must never be stored in metal containers or be mixed directly with accelerators.

Apply a thin mist coat and allow 1-5 minutes for the solvents to flash off, giving a matt surface on the Crystic PrimeCoat. The exact time required will depend on temperature, ventilation and absorbtivity of the pattern material.

Follow with heavier, wet coats, building slowly to the desired thickness. Again, allow 1-5 minutes between passes to allow evaporation of solvents. Do not apply successive wet coats without allowing solvents to flash off as this will slow down the cure rate and may lead to entrapped solvent.



Allow the surface primer to cure until it can be dry sanded without excessive clogging of the abrasive paper. This time will depend on temperature and can be as little as 2 hours, though the material will still be easily sandable 24 hours later. Sand the surface back initially with 100-180 grit abrasive paper, progressing to finer grades up wet 1200 grit. If, after this, grain marks etc are still visible, remove them by dry sanding with 80 grit paper and then re-apply Crystic PrimeCoat from Step '3'. Leave the surface for 12 hours to allow it to dry and release solvents. This can be reduced to as little as 30 minutes if infrared heating is applied.

Apply a good quality polishing system from our range until the surface becomes glossy.

Apply a release agent system from our range and then proceed with construction of the mould.

Application Guide for Mould Refurbishing

Refer to Technical Leaflet no. 245.8SA, Crystic GlossCoat.

Storage

Crystic PrimeCoat should be stored in the dark in suitable closed containers. It is recommended that the storage temperature should be less than 20°C where practical, but should not exceed 30°C. Ideally, containers should be opened only immediately prior to use.

Packaging

Crystic PrimeCoat is supplied in 5kg and 25kg containers.

Health and Safety

Please see the applicable Material Safety Data Sheets.

Technical Leaflet No 102.22SA
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Before you use this information, kindly verify that this data sheet is the latest version.

All information is given in good faith but without warranty. We cannot accept responsibility or liability for any damage, loss or patent infringement resulting from the use of this information.

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