

# CRYSTIC GELCOAT LS 97PA RAPIDE

## Low Styrene Content Gelcoat for Spray Application (available in a wide range of RAL colours)

### **Introduction**

Crystic Gelcoat LS 97PA Rapide is a high performance gelcoat. It is filled, pre-accelerated and formulated for spray application. This product is available in a wide range of RAL colours and the information contained in this datasheet also applies to pigmented versions.

### **Applications**

Crystic Gelcoat LS 97PA Rapide is designed for use where smooth finish is required on the reverse side of a laminate.

### **Product Characteristics**

The product should be conditioned at workshop temperature (18°C – 25°C) and mixed before use. Crystic Gelcoat LS 97PA Rapide requires the addition of a catalyst to start the curing reaction. Use Scott Bader Catalyst M (Butanox M50) and incorporate this into the gelcoat at 1–2% v/w. Unsaturated polyester products release heat when they cure in bulk. If manually adding catalyst to the product prior to spraying, do not prepare more material than is required to complete the job and spray within 3 minutes. Ensure that all equipment is thoroughly cleaned after use.

### **Do**

- Gently stir the gelcoat before use, by hand or with a low shear mixer.
- Ensure workshop temperature is between 18 and 25°C.
- Spray at the minimum pressure to achieve an acceptable spray pattern.
- Apply the gelcoat in thin even passes, building up the film thickness to 0.5- 0.6 mm wet.
- Ensure adequate mould ventilation.

### **Don't**

- Exceed a wet film thickness exceeding 0.8 mm or drainage may occur.
- Allow vapour to be retained in deep mould sections, this can slow cure.
- Apply excessive gelcoat in corners. This can cause pre-release.

### **Additives**

Crystic Gelcoat LS 97PA Rapide is supplied in a wide range of RAL colours. The addition of fillers can adversely affect the quality of the surface achieved.

## Post Curing

Laminates take time to cure fully and develop mechanical properties at room temperature. This process can be accelerated by post-curing at elevated temperature. Please seek advice for your specific needs. Optimum properties can normally be obtained by allowing to cure for 24 hours at ambient temperature followed by 3 hours at 80°C.

## Typical Properties

The following table gives typical liquid properties of Crystic Gelcoat LS 97PA Rapide when tested in accordance with Scott Bader test methods.

Properties for 'RAL 9003' Gelcoat	Method	Typical Value
Viscosity, 25°C 0.6s <sup>-1</sup>	3.41	250 poise
Viscosity, 25°C 4500s <sup>-1</sup>	3.6	2.4 poise
Specific gravity @ 25°C (white gelcoat)	8.01	1.2
Stability in the dark @ 20°C	-	3 months
Geltime 25°C 2% Catalyst M (Butanox M50)	5.25	7 minutes

## Typical Properties

The following are typical mechanical properties obtained from the gelcoat base resin following a postcure of 24hrs @ 50°C and tested as specified in BS EN ISO12215-1: 2000

Mechanical properties	Method	Value (2 s.f.)
Barcol hardness (Model 934-1)	EN59	36
Heat deflection temperature	BS EN ISO 75-2 (1996)	63°C
Water absorption 24 hours @ 23°C	BS EN ISO 62 part 6.2	17 mg
Tensile strength	BS EN ISO 527- 2	74 MPa
Elongation at break	BS EN ISO 527- 2	4.7 %
Flexural strength	BS EN ISO 178	110 MPa
Flexural modulus	BS EN ISO 178	2800 MPa

## Storage

Crystic Gelcoat LS 97PA Rapide should be stored in the original containers. These must be kept closed and airtight. It is recommended that the storage temperature should be less than 20°C to achieve maximum storage life.

## Packaging

Crystic Gelcoat LS 97PA Rapide is supplied in 25kg and 225kg containers.

## Health & Safety

Please refer to Material Safety Data Sheet.

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