CRYSTIC® GELCOAT LS 88PA

Isophthalic Brush Gelcoat with Excellent Water and Weather Resistance

Introduction
Crystic Gelcoat LS 88PA is a pre-accelerated, isophthalic gelcoat. It has been formulated for brush application, but spray versions are available. Crystic LS 88PA is available in a wide range of colours and the information contained in this leaflet also applies to these pigmented versions.

Applications
Crystic LS 88PA is recommended for use in the marine industry. It is also suitable for building applications and general moulding requirements.

Features and Benefits
Crystic LS 88PA typically contains 24 – 26% styrene and has excellent water and weather resistance.

Approvals
Crystic LS 88PA is approved by Lloyd's Register of Shipping for use in the construction of craft under their survey. When backed with Crystic 356PA, it is capable of obtaining a Class 1 certificate to BS476 Part 7.

Formulation
Crystic Envirotec LS-88PA should be allowed to attain workshop temperature (18ºC-20°C) before use. Stir well by hand, or with a low shear mixer to avoid aeration, and then allow to stand to regain thixotropy. Crystic Envirotec LS-88PA requires only the addition of a catalyst to start the curing reaction. The recommended catalyst is Butanox M50 (or other equivalent catalyst), which should be added at 2% into the gelcoat. (Please consult our Technical Service Department if other catalysts are to be used). The catalyst should be thoroughly incorporated into the gelcoat, with a low shear mechanical stirrer where possible.

Pot Life

Temperature	Pot Life in Minutes Using 2% Butanox M50
15°C	25
20°C	16
25°C	8

The gelcoat, mould and workshop should all be at, or above, 15°C before curing is carried out.

Application
For normal moulding, the application of Crystic LS 88PA should be controlled to 0.4-0.5 mm (0.015-0.020 inch) wet film thickness. As a guide, approximately 450-600 g/m2 of gelcoat mixture (depending on pigment) will give the required thickness when evenly applied.

Additives
Crystic LS 88PA is supplied in a wide range of colours. This eliminates the potential for mixing errors with small quantities of pigment paste. The addition of fillers or pigments can adversely affect the water and weather resistance of the cured gelcoat. Crystic LS 88PA can be used as a topcoat, provided that 2% Crystic Solution MW is added to overcome the normal tackiness.

Recommended Testing
It is recommended that customers test all pigmented gelcoats before use under their own conditions of application to ensure the required surface finish is achieved.

Typical Properties
The following tables give typical properties of Crystic LS 88PA when tested in accordance with SB, BS, BS EN or BS EN ISO test methods.

Property		**Liquid Gelcoat**
Appearance		Mauvish, cloudy
Viscosity at 25ºC		Thixotropic
Specific Gravity at 25ºC		1.11
Volatile Content	%	27
Stability at 20ºC	months	3
Geltime at 25ºC using 2% Butanox M50 (or other equivalent catalyst)	minutes	8
Property		**Fully cured* (unfilled casting)**
Barcol Hardness (Model GYZJ 934-1)		50
Water Absorption 24hrs at 23ºC	mg	17
Deflection Temperature under load (1.80MPa)†	°C	70
Elongation at Break	%	2.3
Tensile Strength	MPa	60
Tensile Modulus	MPa	3850

* Curing schedule - 24 hrs at 20ºC, 3 hrs at 80ºC
† Curing schedule - 24 hrs at 20ºC, 5 hrs at 80º C, 3 hrs at 120º C

Post-Curing
Satisfactory laminates for many applications can be made with Crystic LS 88PA by curing at workshop temperature (20ºC). However, for optimum properties, laminates must be post-cured before being put into service. The moulding should be allowed to cure for 24 hours at 20ºC, and then be oven-cured for 3 hours at 80ºC.

Storage
Crystic LS 88PA should be stored in its original container and out of direct sunlight. It is recommended that the storage temperature should be less than 20ºC where practical, but should not exceed 30ºC. Ideally, containers should be opened only immediately prior to use.

Packaging
Crystic LS 88PA is supplied in 25kg and 225kg containers.

Health and Safety
See separate Material Safety Data Sheet.

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