

CRYSTIC[®] GELCOAT 65PA

Isophthalic Brush Gelcoat with Excellent Water Resistance

Introduction

Crystic Gelcoat 65PA is a pre-accelerated, isophthalic gelcoat. It has been formulated for brush application, but spray versions are available. Crystic Gelcoat 65PA is available in a wide range of colours and the information contained in this technical data sheet also applies to these pigmented versions. A non-accelerated version, Crystic Gelcoat 65, can also be supplied.

Applications

Crystic Gelcoat 65PA is designed for use in the marine, building and transport industries. It is also suitable for general moulding requirements.

Features and Benefits

Crystic Gelcoat 65PA has excellent water and weather resistance.

Approvals

Crystic Gelcoat 65PA 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 and of satisfying the requirements of the Building Regulations for a Class O structure. The same laminate can also achieve an M1 rating to the French Epiradiateur NFP 92-501 test.

Formulation

Crystic Gelcoat 65PA should be allowed to attain workshop temperature (18°C-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 Gelcoat 65PA requires only the addition of 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
15°C	24
20°C	15
25°C	9

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 Gelcoat 65PA should be controlled to 0.4-0.5mm (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.

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.

Additives

Crystic Gelcoat 65PA 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 Gelcoat 65PA can be used as a topcoat provided that 2% Crystic Solution MW is added to overcome the normal tackiness.

Physical Data - Uncured

The following tables give typical properties of Crystic Gelcoat 65PA when tested in accordance with SB, BS, EN or BS EN ISO test methods.

Property	Unit	Liquid Gelcoat
Appearance		Mauvish, Cloudy
Viscosity at 25°C		Thixotropic
Specific Gravity at 25°C		1.11
Volatile Content	%	34
Stability at 20°C	Months	3
Geltime at 25°C Using 2% Butanox M50 (or Other Equivalent Catalyst)	Minutes	9

Physical Data - Cured

Property	Unit	Fully Cured *Gelcoat (Unfilled Casting)
Barcol Hardness (Model GYZJ 934-1)		42
Water Absorption 24 hrs at 23°C	mg	18
Deflection Temperature Under Load† (1.80 MPa)	°C	75
Elongation at Break	%	3.0
Tensile Strength	MPa	75
Tensile Modulus	MPa	3500

* Curing Schedule - 24hrs at 20°C, 3hrs at 80°C.

† Curing Schedule - 24hrs at 20°C, 5hrs at 80°C, 3hrs at 120°C.

Post-Curing

Satisfactory laminates for many applications can be made with Crystic Gelcoat 65PA by curing at workshop temperature (20°C). 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 20°C, and then be oven-cured for 3 hours at 80°C.

Storage

Crystic Gelcoat 65PA should be stored in its original container and out of direct sunlight. 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 Gelcoat 65PA is supplied in 25Kg and 225Kg containers.

Health and Safety

See separate Material Safety Data Sheet.

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