

CRYSTIC[®] GELCOAT PD9780PA

Isophthalic Brush Gelcoat with Low Porosity

Introduction

Crystic Gelcoat PD9780PA is a pre-accelerated, isophthalic gelcoat. It has been formulated for brush application, and has been developed for applications where very low porosity is required. Crystic Gelcoat PD9780PA is available in a wide range of colours and the information contained in this technical data sheet also applies to these pigmented versions.

Applications

Crystic Gelcoat PD9780PA is designed for use in the marine, building and transport industries. It is also suitable for general moulding requirements.

Features and Benefits

Crystic Gelcoat PD9780PA has excellent water and weather resistance.

Formulation

Crystic Gelcoat PD9780PA 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 PD9780PA 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.

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.

Additives

Crystic Gelcoat PD9780PA 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.

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 Gelcoat PD9780PA when tested in accordance with SB, BS, EN or BS EN ISO test methods.

Physical Properties - Uncured

Property	Unit	Liquid Gelcoat
Appearance		Mauvish, cloudy
Viscosity at 25°		Thixotropic
Specific Gravity at 25°C		1.11
Volatile Content	%	34
Geltime at 25°C using 2% Butanox M50 (or other equivalent catalyst)	Minutes	9
Stability at 20°C	Months	3

Physical Properties - Cured

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

* Curing schedule - 24 hrs @ 20 °C, 3 hrs @ 80 °C

† Curing schedule - 24 hrs @ 20 °C, 5 hrs @ 80 °C, 3 hrs @ 120 °C

Post-Curing

Satisfactory laminates for many applications can be made with Crystic Gelcoat PD9780PA 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 PD9780PA 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 PD9780PA is supplied in 25 kg and 225 kg containers.

Health and Safety

See separate Material Safety Data Sheet.

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