

# CRYSTIC GELCOAT 25PA

## Orthophthalic Brush Gelcoat

### Introduction

Crystic Gelcoat 25PA is a pre-accelerated, flexible, orthophthalic gelcoat. It has been formulated for brush application and is available in a restricted range of colours. The information contained in this leaflet also applies to pigmented versions.

### Applications

Crystic Gelcoat 25PA is designed for use in non critical parts in building, land transport and general industrial applications.

### Features and Benefits

Crystic Gelcoat 25PA is suitable for use on external parts but has limited gloss and gloss retention.

### Formulation

Crystic Gelcoat 25PA should be allowed to attain workshop temperature (18° - 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 25PA 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 for advice, 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 (or other equivalent catalyst)
15°C	25
20°C	16
25°C	10

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 25PA should be controlled to 0.4 - 0.5mm (0.015 – 0.020 inch) wet film thickness. As a guide, approximately 450 - 600g/m<sup>2</sup> of gelcoat mixture (depending on pigment) will give the required thickness when evenly applied.

### Additives

Crystic Gelcoat 25PA is supplied in a restricted 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 weather resistance and flexibility 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 25PA when tested in accordance with appropriate SB, BS, EN or BS EN ISO test methods.

Property		Liquid Gelcoat
Appearance		Mauvish, cloudy
Viscosity at 25°C		thixotropic
Specific Gravity at 25°C		1.1
Stability at 20°C	months	3
Gel time at 25°C using 2% Butanox M50 (or other equivalent catalyst)	minutes	10

Property		Fully cured *Gelcoat (unfilled casting)
Barcol Hardness (model GYZJ 934-1)		33
Water Absorption 24 hrs at 23°C	mg	28
Deflection Temperature under load† (1.80 MPa)	°C	36
Elongation at Break	%	14
Elongation at Peak Stress	%	5.5
Tensile Strength	MPa	32
Tensile Modulus	MPa	1600

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

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

## Post Curing

Satisfactory laminates for many applications can be made using Crystic Gelcoat 25PA by curing at workshop temperature (20°C). For optimum properties, however, 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 25PA 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 25PA is supplied in 25 kg and 225 kg containers.

## Health and Safety

Please see separate Material Safety Data Sheet