

CRYSTIC[®] GELCOAT 33PA

Flexible Isophthalic Brush Gelcoat With Good Impact Resistance

Introduction

Crystic Gelcoat 33PA is a pre-accelerated, brush isophthalic gelcoat available in a wide range of colours. The information contained in this leaflet also applies to pigmented versions.

Applications

Crystic Gelcoat 33PA is suitable for any marine, building or transport application where good flexibility and impact resistance is needed.

Features and Benefits

Crystic Gelcoat 33PA is resilient and flexible with good water and impact resistance.

Approvals

Crystic Gelcoat 33PA is approved by Lloyd's Register of Shipping for use in the construction of craft under their survey.

Formulation

Crystic Gelcoat 33PA 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 33PA 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	28
20°C	17
25°C	10

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

Application

The application of Crystic Gelcoat 32PA should be controlled at 0.5-0.6mm wet film thickness. As a guide, approximately 500-750g/m² of gelcoat mixture (depending on pigment) will give the required thickness when evenly applied.

Additives

Crystic Gelcoat 32PA is supplied in a full 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 performance 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.

Physical Data - Uncured

The following tables give typical properties of Crystic Gelcoat 33PA when tested in accordance with appropriate 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		1.15
Acid Value	mgKOH/g	19
Stability at 20°C	Months	3
Geltime at 25°C Using 2% Butanox M50 (or Other Equivalent Catalyst)	Minutes	10

Physical Data - Cured

Property	Unit	Fully Cured *Gelcoat (Unfilled Casting)
Barcol Hardness (Model GYZJ 934-1)		33
Water Absorption 24 hrs at 23°C	mg	26
Deflection Temperature Under Load† (1.80 MPa)	°C	55
Elongation at Break	%	4.9
Tensile Strength	MPa	66
Tensile Modulus	MPa	3260

* 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 mouldings for many applications can be made with Crystic Gelcoat 33PA by curing at workshop temperature (20°C). However, for optimum properties, mouldings 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 33PA 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 only be opened immediately prior to use.

Packaging

Crystic Gelcoat 33PA is supplied in 25Kg and 225Kg containers.

Health and Safety

Please see separate Material Safety Data Sheet.

Version 3 : February 2013

All information on this data sheet is based on laboratory testing and is not intended for design purposes. Scott Bader makes no representations or warranties of any kind concerning this data. Due to variance of storage, handling and application of these materials, Scott Bader cannot accept liability for results obtained. The manufacture of materials is the subject of granted patents and patent applications; freedom to operate patented processes is not implied by this publication.

SCOTT BADER COMPANY LIMITED

Wollaston, Wellingborough, Northamptonshire, NN29 7RL

Telephone: +44 (0) 1933 663100

Facsimile: +44 (0) 1933 666623

www.scottbader.com