CRYSTIC MICROBAN GELCOAT 32PA

ISO - NPG brush gelcoat for low porosity applications

Introduction
Crystic Microban Gelcoat 32PA is a pre-accelerated isophthalic / neopentyl glycol gelcoat with built-in antibacterial protection to provide protection against common bacteria, mould and mildew in composite parts manufactured using this product. It has been formulated for brush application and is available in a full range of colours. The information contained in this technical datasheet also applies to these pigmented versions.

Applications
Crystic Microban Gelcoat 32PA is designed for use in the manufacture of FRP composite components where very low porosity is required.

Features and benefits
Crystic Microban Gelcoat 32PA is resilient and heat resistant and can be polished to a high gloss.

Formulation
Crystic Microban Gelcoat 32PA should be allowed to attain workshop temperature (18º - 20ºC) before use. Stir well by hand, or with a low shear mixer to avoid aeration, and then allow to stand to regain thixotropy. Crystic Microban Gelcoat 32PA 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
15ºC	15
20ºC	11
25ºC	9

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

Application
The application of Crystic Microban 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 Microban 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.

Typical Properties
The following tables give typical properties of Crystic Microban Gelcoat 32PA when tested in accordance with SB, BS EN or BS EN ISO test methods.

Liquid Gelcoat		
Appearance		Mauvish, cloudy
Viscosity at 25ºC		Thixotropic
Specific Gravity at 25ºC		1.1
Acid Value	mgKOH/g	16
Volatile Content	%	29
Stability at 20ºC	months	3
Gel time at 25ºC using 2% Butanox M50 (or other equivalent catalyst)	minutes	9

Fully cured *Gelcoat (unfilled casting)		
Barcol Hardness (model GYZJ 934-1)		46
Water Absorption 24hrs at 23ºC	mg	17
Deflection Temperature under Load† (1.80 MPa)	ºC	83
Elongation at Break	%	2.0
Tensile Strength	MPa	64
Tensile Modulus	MPa	3800

* Curing Schedule - 24hrs at 20ºC, 3 hrs at 80ºC
† Curing Schedule - 24hrs at 20ºC, 5 hrs at 80ºC, 3hrs at 120ºC

Post Curing
Satisfactory laminates for many applications can be made with Crystic Microban Gelcoat 65PA 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 Microban Gelcoat 32PA 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 Microban Gelcoat 32PA is supplied in 25 kg and 225 kg containers.

Health and Safety
Please see separate Material Safety Data Sheet

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