

CRYSTIC MICROBAN TOPCOAT 47PA

Matt Finished Topcoat for Brush Application

Introduction

Crystic Microban Topcoat 47PA is a pre-accelerated, filled topcoat 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 range of colours. The information contained in this technical datasheet also applies to these pigmented versions.

Applications

Crystic Microban Topcoat 47PA is designed for interior parts which need antibacterial protection and where a smooth finish is required on the reverse side of a laminate. It is not suitable for exterior use.

Features and Benefits

Crystic Microban Topcoat 47PA has low styrene emission. It is not air inhibited, and produces a matt finish.

Formulation

Crystic Microban Topcoat 47PA 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 Microban Topcoat 47PA 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 topcoat. (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	21
20°C	15
25°C	10

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

Application

For normal requirements, the application of Crystic Microban Topcoat 47PA should be controlled to 0.4 - 0.5mm (0.015 - 0.020 inch) wet film thickness. As a guide, approximately 700-900g/m² of topcoat mixture (depending on pigment) will give the required thickness when evenly applied.

Additives

Crystic Microban Topcoat 47PA 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 properties of the cured topcoat.

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 Topcoat 47PA when tested in accordance with SB, BS, or BS EN ISO test methods.

Property		Liquid Flowcoat
Appearance		Filled, opaque
Viscosity at 25°C		thixotropic
Specific Gravity at 25°C		1.7
Volatile Content	%	18
Stability at 20°C	months	3
Geltime at 25°C using 2% Butanox M50 (or other equivalent catalyst)	minutes	10

Property		Fully cured* Flowcoat (unfilled casting)
Barcol Hardness (Model GYZJ 934-1)		58
Water Absorption 24hrs at 23°C	mg	13
Deflection Temperature under load† (1.80 MPa)	°C	73
Elongation at Break	%	0.4
Tensile Strength	MPa	35
Tensile Modulus	MPa	7769

* 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

Curing at workshop temperature (20°C) will be satisfactory for many applications. 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 Microban Topcoat 47PA 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 Microban Topcoat 47PA is supplied in 25kg and 225kg containers.

Health and Safety

Please see separate Material Safety Data Sheet.