

CRYSTIC[®] FIREGUARD 72PA

Fire Retardant Spray Gelcoat

Introduction

Crystic Fireguard 72PA is a pre-accelerated filled spray gelcoat. It 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 Fireguard 72PA can be used both internally and externally for building, transport and general industrial work.

Features and Benefits

Crystic Fireguard 72PA has very low flammability.

Approvals

A properly applied, fully cured coating of Crystic Fireguard 72PA and Crystic 1355PA can obtain a Class 1 rating according to BS476 Part 7.

Formulation

Crystic Fireguard 72PA should be allowed to attain workshop temperature (18°C-20°C) before use. Stir well by hand or with a low shear stirrer to avoid aeration and then allow to stand to regain thixotropy. Crystic Fireguard 72PA 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.

Spray Application : Do

- Gently stir the gelcoat before use by hand or low shear stirrer.
- Ensure the gelcoat has attained workshop temperature of 18°C-25°C before use. (Temperatures below 18°C will require higher pressure to achieve an acceptable spray pattern and this will encourage porosity).
- Spray at the minimum practical pressure whilst maintaining an acceptable spray pattern and full fan width.
- Apply a mist coat and then build up thickness in long, even passes until the recommended wet film thickness of 0.4-0.5mm (0.015-0.020 inch) is reached. This will minimise porosity and colour defects.

Don't

- Stir the gelcoat with high shear mixers as this will temporarily break down the thixotropy leading to drainage.
- Exceed a wet film thickness of 0.625mm (0.025 inch) as thick films encourage air retention.
- Apply excessive thickness in corner areas as this can cause pre-release.

Additives

The addition of fillers or pigments to Crystic Fireguard 72PA is likely to affect the weathering and cure of this material and is not recommended.

Recommended Testing

It is recommended that customers test Crystic Fireguard 72PA 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 Fireguard 72PA when tested in accordance with SB, BS EN or BS EN ISO test methods.

Property	Unit	Liquid Topcoat
Appearance		Opaque, Coloured
Viscosity at 25 °C		Thixotropic
Specific Gravity at 25 °C		1.40
Volatile Content	%	32
Stability at 20°C	Months	3
Geltime at 25°C Using 2% Butanox M50 (or Other Equivalent Catalyst)	Minutes	6 – 10

Physical Data - Cured

Property		Fully Cured* Gelcoat (Unfilled Casting)
Barcol Hardness (Model GYZJ 934-1)		54
Deflection Temperature Under Load† (1.80 MPa)	°C	80
Elongation at Break	%	2
Tensile Strength	MPa	55
Tensile Modulus	MPa	5200

*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

For many applications, Crystic Fireguard 72PA will perform adequately when cured at workshop temperature (20°C). However, for optimum properties it should be allowed to cure for 24 hours at 20°C, and then be oven-cured for 3 hours at 80°C.

Storage

Crystic Fireguard 72PA 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 Fireguard 72PA is supplied in 25Kg and 225Kg containers.

Health and Safety

Please see separate Material Safety Data Sheet.

Version 2 : February 2013

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