

CRYSTIC[®] FIREGUARD 70PA

Low Smoke Fire Retardant Gelcoat for Spray Application

Introduction

Crystic Fireguard 70PA is a pre-accelerated, low smoke fire retardant gelcoat. It has been formulated for spray application. It is available in a range of colours and the information contained in this leaflet also applies to these pigmented versions.

Applications

Crystic Fireguard 70PA can be used on both internal parts and external parts for building, transport and general industrial work.

Features and Benefits

Crystic Fireguard 70PA has good weathering properties and low flammability. Properly manufactured, fully cured laminates using Crystic Fireguard 70PA and Crestapol 1212 with 170phr ATH can achieve a HL2 rating to TS45545-2: 2009 (Firestarr).

Formulation

Crystic Fireguard 70PA 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 70PA 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	21
20°C	15
25°C	12

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

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 of 0.125mm (0.005 inch) until the recommended wet film thickness of 0.5 - 0.625mm (0.020-0.025 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.

Physical Data - Uncured

The following tables give typical properties of Crystic Fireguard 70PA when tested in accordance with SB, BS, BS EN or BS EN ISO test methods.

Property	Unit	Liquid Topcoat
Appearance		Opaque
Viscosity at 25°C		Thixotropic
Specific Gravity at 25°C		1.4
Stability at 20°C	Months	3
Geltime at 25°C Using 2% Butanox M50	Minutes	12

Post-Curing

Satisfactory laminates for many applications can be made with Crystic Fireguard 70PA by curing at workshop temperature (20°C). 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 Fireguard 70PA 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 70PA is supplied in 25Kg and 225Kg containers.

Health and Safety

Please see separate Material Safety Data Sheet.

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