Crystic® Fireguard Range

New Technology Fire Retardant Gelcoats and Topcoats - Protecting Composites from Fire

Unsaturated polyester resins used to make Glass Reinforced Plastic (GRP) are organic and like all organic compounds they will burn. Certain applications such as rail, marine, land transportation and building need systems that delay burning long enough for effective evacuation. In some areas, there is an additional focus on low levels of smoke and toxic fume emission during burning. The need for fire retardant composites is specified by the relevant national and European fire standards.

Crystic Fireguard Gelcoat 70PA	New Technology Fire Retardant, Halogen Free Low Smoke and Low Surface Spread of Flame Spray Gelcoat for the Most Stringent Fire Approvals
Crystic Fireguard Gelcoat 72PA	New Technology Fire Retardant Halogen Free Low Surface Spread of Flame Spray Gelcoat
Crystic Fireguard Gelcoat 73PA	New Technology Fire Retardant Halogen Free Low Surface Spread of Flame Brush Gelcoat
Crystic Fireguard Topcoat 75PA Excel	New Technology Intumescent Fire Retardant Topcoat, Available in Both Spray and Brush Grades

TECHNICAL PERFORMANCE BENEFITS OF CRYSTIC FIREGUARD RANGE :

- High level of fire retardancy – lower surface spread of flame
- Superior handling
- Low porosity finish
- Easy to repair
- Antimony Free
- 75PA Excel is available in a limited range of colours please ask for details. 70PA, 72PA and 73PA are available in all RAL colours

LOW SMOKE PERFORMANCE OF CRYSTIC FIREGUARD GELCOAT 70PA

- Crystic Fireguard Gelcoat 70PA with Crestapol 1212 produces less than half the amount of smoke compared to a standard fire retardant BS476 Part 7, Class 1 laminate*
- Crystic Fireguard Gelcoat 70PA with Crestapol 1212 has a 3 times lower optical density value (this measure the thickness of smoke) compared to a standard fire retardant laminate which achieves BS476 Part 7, Class 1*

* When tested to ISO 5659-2

Spread of flame on a horizontal burn test after 5 minutes*

APPROVALS

Crystic Fireguard Gelcoat 70PA
Firestarr CEN TS 45545-2 HL2 with Crestapol 1212

Crystic Fireguard Gelcoat 72PA
BS 476 Part 7, Class 1 with 1355PA, DIN5510-2 S4, SR2, ST2 with Cresatpol 1212
M1 F1 rating with Crestapol 1212

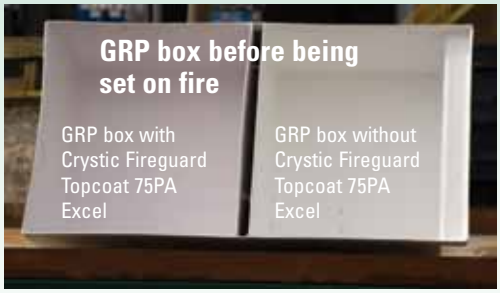
Crystic Fireguard Gelcoat 73PA
BS 476 Part 7, Class 2 with 2.3700PA modified general purpose resin

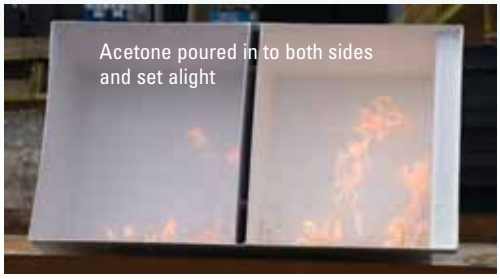
Crystic Fireguard Topcoat 75PA Excel
BS 476 Part 7, Class 1 BS476 part 6, Class 0,
M1 F1 rating with Crestapol 1212

MARKETS

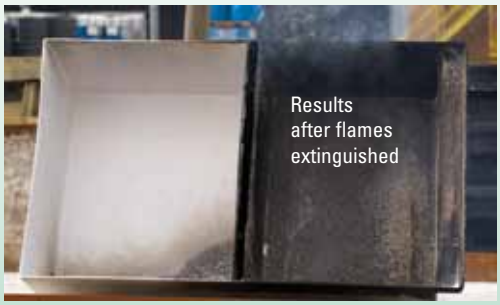
- ✔ **RAIL** – Cab Fronts, Nose Cones, Exterior and Interior Panels, Seat Shells and Tables
- ✔ **LAND TRANSPORTATION** – Buses, Coaches and Trucks
- ✔ **MARINE** – Engine Rooms
- ✔ **BUILDING AND CONSTRUCTION** – Doors, Roofs, Exterior and Interior Cladding

Crystic Fireguard Topcoat 75PA Excel External Burn Test





The fire in the box after 4 minutes clearly showing the protective properties of Crystic Fireguard Topcoat 75PA Excel on the left hand side



Typical properties of Crystic Fireguard Gelcoat 70PA		Liquid Gelcoat
Property		**Liquid**
Appearance		Opaque, coloured
Viscosity, 25°C		Thixotropic
Specific Gravity at 25°C		1.30
Stability in the Dark @ 20°C	months	3
Geltime 25°C using 2% Butanox M50 (or other equivalent catalyst)	minutes	12

Typical properties of Crystic Fireguard Topcoat 75PA Excel (B)		Liquid Topcoat
Property		**Liquid**
Appearance		Opaque, coloured
Viscosity, 25°C		Thixotropic
Liquid Specific Gravity at 25°C		1.35
Volatile Content	%	20
Stability in the Dark @ 20°C	months	2
Geltime @ 25°C using 2% Butanox M50 (or other equivalent catalyst)	minutes	10
Barcol Hardness* (model GYZJ 934-1)		40
Solid Specific Gravity at @ 25°C*		1.46

* Curing Schedule - 24 hrs at 20°C, 8 hrs at 60°C

Typical properties of Crystic Fireguard Topcoat 75PA Excel (S)		Liquid Topcoat
Property		**Liquid**
Appearance		Opaque, coloured
Viscosity, 25°C		Thixotropic
Liquid Specific Gravity at 25°C		1.35
Volatile Content	%	27
Stability in the Dark @ 20°C	months	2
Geltime @ 25°C using 2% Butanox M50 (or other equivalent catalyst)	minutes	10
Barcol Hardness** (model GYZJ 934-1)		40
Solid Specific Gravity at @ 25°C**		1.46

** Fully cured (unfilled casting)

Typical properties of Crystic Fireguard Gelcoat 72PA and 73PA		Liquid Gelcoat
Property		**Liquid**
Appearance		Opaque, coloured
Viscosity, 25°C		Thixotropic
Specific Gravity at 25°C		1.40
Stability in the Dark @ 20°C	months	3
Geltime 25°C using 2% Butanox M50 (or other equivalent catalyst)	minutes	8

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