ULTRATEC™ WHITE FR SPRAY GELCOAT

Technical Datasheet

PRODUCT CODE: C410001

Ultratec™ FR GELCOAT is a specially formulated Fire Retardent Gelcoat for composite applications requiring reduced flammability. This gelcoat contains a non-halogenated fire-retardent system which forms a carbonaceous char on combustion. This surface layer helps to protect the underlying polymer structure from oxygen and radiant heat.

Flammability characteristics of Ultratec™ FR GELCOAT have been determined according to Australian Standard AS1530.3-1999. When tested according to this standard, zero flame spread ratings can be achieved for properly made, well cured composites faced with this Gelcoat. An M2F1 fire classification has also been demonstrated for Ultratec™ FR Gelcoat when tested according to French Fire Standards: NF P92-507 and NF F16-101.

This fire retardant gelcoat also shows excellent handling properties and good UV and weathering resistance. The Gelcoat has been designed for ambient temperature curing with MEKP initiators.

FEATURES

- Excellent atomization and general spraying characteristics
- Excellent flow/levelling properties
- Good sag resistance
- Highly resistant to triping/wrinkling
- Cured gelcoat shows reduced flammability and intumescent behaviour
- Zero flame spread index when tested according to AS1530.3-1999
- French Fire Test classification according to NF P92-507:1994 and NF F16-101:1988

BENEFITS

- Easy to apply with industry standard spray equipment
- Easy control of film thickness
- Provides a more consistent film thickness
- Increased tolerance to application variability
- Can be used in specialized fire retardant applications
- Low flammability characteristics
- M2 F1

RELATED PRODUCTS

C410005 – Ultratec™ FR Neutral Gelcoat

RECOMMENDED CATALYST

2% Curox MEKP NR20 or 2% Norox MEKP 9

ADDITIONAL INFORMATION

Fire properties (Ultratec™ FR Gelcoat tested: C410001 – White)

AS1530.3-1999 Fire Test Properties :	Ignitability Index Spread of Flame Index Heat Evolved Index Smoke Developed Index	14 0 2 8
Application Guidelines :	Temperature Catalyst –MEKP NR20 / Norox 9 Film thickness	15-30°C 1.5–2.5% 25–35 thou

French Fire Test classification	M2 F1
Reaction to Fire (classification according to NF P92-507: 1994)	M2
Classification of smoke density and toxicity (classification according to NF F16-101:1988)	F1

Fire Test Reports are available on request.

TEST PANEL CONSTRUCTION DETAILS (COMPOSITE)

Total Thickness	Approximately 3mm
Total Weight g/m³	7.9kg
Gelcoat Thickness	0.5mm
Gelcoat Weight	1.0kg
Laminate – Glass fibre content	2.3kg
Laminate – Resin (Modar 816) content	4.6kg

TYPICAL LIQUID RESIN PROPERTIES

PROPERTY	TYPICAL VALUE	TEST DETAILS
Appearance	Translucent Liquid	
Viscosity	14000–17000 cP (Summer) 12000–15000 cP (Winter) 300 - 350 cP	Brookfield RVF sp 4/4 rpm Cone and Plate
Geltime	11 – 14 minutes (Summer) 7 – 9 minutes (Winter)	2% v/w MEKP NR20
Shelf Life	3 months	When stored in original closed container in the shade

Typical values: Based on materials tested in our laboratories, but varies from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

TYPICAL CAST UNFILLED RESIN PROPERTIES

PROPERTY	TYPICAL VALUE	TEST DETAILS
Hardness	40	Barcol (GYZ 934-1) EN 59
Volume Shrinkage	7 – 8 %	ISO 3521
Heat Deflection	80 – 85 °C	ISO 175 (1.8 MPa)

STORAGE AND HANDLING

To ensure maximum stability and maintain optimum resin handling properties, polyester resins should be stored in closed containers, away from heat sources and sunlight. The resin should be stored away from all sources of ignition. Stored resin quantities should be kept to a reasonable minimum and used on a first in/first out stock rotation basis. Prolonged storage, or unfavourable storing conditions, may cause separation, therefore agitation of the resin before use is recommended.

STANDARD PACKAGING

Mild steel drums
Mild steel pails

Always refer to the MSDS before use