

Frianyl® B3 GF25 V0 BK 9005

Polyamide 6

Celanese Corporation

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

Polyamide 6 compound, 25% glass fiber reinforced, heat resistant, based on flame retardants halogen and red phosphorous free. UL listed V0@0.4mm all color.

Designed for Electrical applications requiring self-extinguishing properties combined with good mechanical performances, this grade meets the most stringent safety requirements for insulating materials.

General

Material Status	• Commercial: Active
UL Yellow Card ¹	• E86034-100348950 • E86034-306734 • E331274-103610530 • E331274-103610531
Search for UL Yellow Card	• Celanese Corporation • Frianyl®
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber
Additive	• Flame Retardant • Flame Retardant
Features	• Flame Retardant • Flame Retardant • Good Heat Resistance
Uses	• Automotive Applications
Forms	• Granules
Processing Method	• Injection Molding

Physical	Nominal Value Unit	Test Method
Density	1.37 g/cm ³	ISO 1183
Molding Shrinkage		ISO 294-4
Across Flow	0.60 to 0.90 %	
Flow	0.30 to 0.60 %	
Water Absorption		ISO 62
Saturation, 23°C	5.2 %	
Equilibrium, 23°C, 50% RH	1.5 %	
Viscosity Number (H2SO4 (Sulphuric Acid))	140 cm ³ /g	ISO 307
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	9000 MPa	ISO 527-1/1A
Tensile Stress (Break)	130 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.8 %	ISO 527-2/1A/5
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength (23°C)	8.5 kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	50 kJ/m ²	ISO 179/1eU
Hardness	Nominal Value Unit	Test Method
Ball Indentation Hardness ³	220 MPa	ISO 2039-1
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		
0.45 MPa, Unannealed	220 °C	ISO 75-2/B
1.8 MPa, Unannealed	210 °C	ISO 75-2/A
Continuous Use Temperature	120 °C	DIN/IEC 60216-1
Ball Pressure Test (175°C)	Pass	IEC 60695-10-2
Melting Temperature ⁴	225 °C	ISO 11357-3
RTI Elec (0.8 mm)	120 °C	UL 746B
RTI Imp		UL 746B
0.8 mm	100 °C	
3.2 mm	105 °C	



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Thermal	Nominal Value Unit	Test Method
RTI Str		UL 746B
0.8 mm	125 °C	
3.2 mm	130 °C	
Electrical	Nominal Value Unit	Test Method
Comparative Tracking Index (CTI)	PLC 0	UL 746A
Flammability	Nominal Value Unit	Test Method
Flame Rating		UL 94
0.40 mm	V-0	
0.8 mm	V-0	
1.6 mm	V-0	
3.2 mm	V-0	
1.5 mm	5VA	
Glow Wire Flammability Index		IEC 60695-2-12
0.8 mm	960 °C	
2.0 mm	960 °C	
3.2 mm	960 °C	
Glow Wire Ignition Temperature		IEC 60695-2-13
0.8 mm	775 °C	
2.0 mm	800 °C	
3.2 mm	800 °C	
FMVSS Flammability ⁵	SE	FMVSS 302

Notes

¹ A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

² Typical properties: these are not to be construed as specifications.

³ 30s

⁴ 20°C/min

⁵ ISO 3795



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Where to Buy

Supplier

Celanese Corporation

Florence, Florence USA

Telephone: 800-833-4882

Web: <http://www.celanese.com/engineered-materials>

Distributor

RESINEX Group

RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.

Telephone: +32-14-672511

Web: <http://www.resinex.com/>

Availability: Europe

SNETOR Distribution

SNETOR Distribution is a Pan European distribution company. Contact SNETOR for availability of individual products by country.

Telephone: +33-1-4904-8888

Web: <http://www.snetor.com/>

Availability: Bulgaria, Croatia, Czech Republic, France, Hungary, Poland, Romania, Serbia, Slovakia, Slovenia

