

# FRIANYL® A3 GF30 V0

Polyamide 66

Celanese Corporation

# PROSPECTOR®

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## Technical Data

### Product Description

FRIANYL® A3 GF30 V0 is a Polyamide 66 (Nylon 66) compound, 30% glass fiber reinforced, flame retardant, halogen and red phosphorous free, UL listed V0.

It is certified according to railways requirements EN45545-2 and NFF 16-101.

This compound is intended for injection molding.

FRIANYL® A3 GF30 V0 is primarily designed for the Electrical and Electronic industry. It is also suitable for Automotive or Industrial & Consumer applications.

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	<ul style="list-style-type: none"> <li>• <a href="#">Technical Datasheet (English)</a></li> <li>• <a href="#">Technical Datasheet (German)</a></li> <li>• <a href="#">Technical Datasheet (Italian)</a></li> </ul>
UL Yellow Card <sup>2</sup>	<ul style="list-style-type: none"> <li>• <a href="#">E496274-103445659</a></li> <li>• <a href="#">E86034-103524876</a></li> <li>• <a href="#">E86034-103524877</a></li> <li>• <a href="#">E331274-103610555</a></li> <li>• <a href="#">E172252-103621718</a></li> <li>• <a href="#">E172252-103621719</a></li> <li>• <a href="#">E331274-103667770</a></li> </ul>
Search for UL Yellow Card	<ul style="list-style-type: none"> <li>• <a href="#">Celanese Corporation</a></li> <li>• <a href="#">FRIANYL®</a></li> </ul>
Availability	<ul style="list-style-type: none"> <li>• Africa &amp; Middle East</li> <li>• Asia Pacific</li> <li>• Europe</li> <li>• Latin America</li> <li>• North America</li> </ul>
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Additive	• Flame Retardant
Features	<ul style="list-style-type: none"> <li>• Flame Retardant</li> <li>• Halogen Free</li> <li>• Low (to None) Phosphorus Content</li> </ul>
Uses	<ul style="list-style-type: none"> <li>• Automotive Applications</li> <li>• Consumer Applications</li> <li>• Electrical/Electronic Applications</li> <li>• Industrial Applications</li> </ul>
Processing Method	• Injection Molding

Physical	Nominal Value Unit	Test Method
Density (23°C)	1.34 g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage		ISO 294-4
Across Flow : 23°C	1.0 %	
Flow : 23°C	0.30 %	
Water Absorption		ISO 62
23°C, 24 hr	1.5 %	
Saturation, 23°C	4.5 %	
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus (23°C)	10000 MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	135 MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.5 %	ISO 527-2
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179/1eA
-30°C	6.0 kJ/m <sup>2</sup>	
23°C	8.0 kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength		ISO 179/1eU
-30°C	No Break	
23°C	No Break	



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Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		
0.45 MPa, Unannealed	220 °C	ISO 75-2/B
1.8 MPa, Unannealed	210 °C	ISO 75-2/A
Continuous Use Temperature <sup>4</sup>	130 °C	IEC 60216
Ball Pressure Test		IEC 60695-10-2
125°C	Pass	
165°C	Pass	
Electrical	Nominal Value Unit	Test Method
Surface Resistivity <sup>5</sup>	1.0E+13 ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+15 ohms·cm	IEC 60093
Electric Strength (2.00 mm)	19 kV/mm	IEC 60243-1
Comparative Tracking Index		IEC 60112
3.20 mm, Solution A	600 V	
Needle Flame Test		IEC 60695-11-5
1.00 mm	Pass	
2.00 mm	Pass	
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	
Glow Wire Flammability Index		IEC 60695-2-12
0.8 mm	960 °C	
3.2 mm	960 °C	
Glow Wire Ignition Temperature		IEC 60695-2-13
0.8 mm	775 °C	
3.2 mm	800 °C	
Oxygen Index	30 %	ISO 4589-2

**Notes**

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> 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.

<sup>3</sup> Typical properties: these are not to be construed as specifications.

<sup>4</sup> 20000 hr

<sup>5</sup> 23°C

