FRIANYL® A3 RV0

Polyamide 66

Celanese Corporation

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Technical Data

Product Description

FRIANYL® A3 RV0 is an unfilled Polyamide 66 (Nylon 66) compound, heat stabilized, flame retardant, halogen and red phosphorous free, UL listed V0.

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

This compound is intended for injection molding.

FRIANYL® A3 RV0 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 [1]	• Technical Datasheet (English) • Technical Datasheet (German) • Technical Datasheet (Italian)		
UL Yellow Card [2]	• E86034-103247387 • E86034-103524882 • E331274-103610472 • E331274-103620107 • E172252-103643379 • E172252-103643380		
Search for UL Yellow Card	• Celanese Corporation • FRIANYL®		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Flame Retardant	• Heat Stabilizer	
Features	• Flame Retardant • Halogen Free	• Heat Stabilized • Low (to None) Phosphorus Content	
Uses	• Automotive Applications • Consumer Applications	• Electrical/Electronic Applications • Industrial Applications	
Processing Method	• Injection Molding		

Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.15	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow : 23°C	1.6	%	
Flow : 23°C	1.5	%	
Water Absorption			ISO 62
23°C, 24 hr	1.4	%	
Saturation, 23°C	6.0	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	3400	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	85.0	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	8.0	%	ISO 527-2

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	3.0	kJ/m²	
23°C	3.5	kJ/m²	
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	185	°C	ISO 75-2/B
1.8 MPa, Unannealed	85.0	°C	ISO 75-2/A
Continuous Use Temperature [4]	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 [5]	1.0E+13	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+15	ohms·cm	IEC 60093
Electric Strength (2.00 mm)	25	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	775	°C	
Oxygen Index	33	%	ISO 4589-2

Notes

[1] 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.

[2] 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.

[3] Typical properties: these are not to be construed as specifications.

[4] 20000 hr

[5] 23°C

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