

FRIANYL® B3 GF20 V2

Polyamide 6

Nilit Plastics

Message:

FRIANYL® B3 VNGF20 V2 is a cross linkable Polyamide 6 (Nylon 6) compound, 20% glass fiber reinforced, flame retardant, halogen and red phosphorous free, UL listed V2.
This compound is intended for injection molding.
FRIANYL® B3 VNGF20 V2 is primarily designed for the Electrical and Electronic industry. It is also suitable for Automotive or Industrial & Consumer applications.

General Information			
UL YellowCard	E172252-225899		
Filler / Reinforcement	Glass Fiber,20% Filler by Weight		
Additive	Flame Retardant		
Features	Flame Retardant		
	Halogen Free		
	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)	1.32	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow : 23°C	0.60	%	
Flow : 23°C	0.40	%	
Water Absorption			ISO 62
23°C, 24 hr	1.2	%	
Saturation, 23°C	6.5	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	5500	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	80.0	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	3.0	%	ISO 527-2
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	4.0	kJ/m ²	
23°C	5.0	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU

23°C	35	kJ/m ²	
30°C	22	kJ/m ²	
Notched Izod Impact Strength			ISO 180/A
-30°C	3.0	kJ/m ²	
23°C	4.0	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	205	°C	ISO 75-2/B
1.8 MPa, Unannealed	165	°C	ISO 75-2/A
Continuous Use Temperature ¹	110	°C	IEC 60216
Ball Pressure Test			IEC 60695-10-2
125°C	Pass		
165°C	Pass		
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity ²	1.0E+13	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+15	ohms·cm	IEC 60093
Electric Strength (2.00 mm)	21	kV/mm	IEC 60243-1
Comparative Tracking Index (3.20 mm, Solution A)	550	V	IEC 60112
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
0.800 mm	V-2		
1.60 mm	V-2		
3.20 mm	V-2		
Glow Wire Flammability Index			IEC 60695-2-12
0.800 mm	960	°C	
3.20 mm	960	°C	
Oxygen Index	25	%	ISO 4589-2
Flammability ³	SE		FMVSS 302
NOTE			
1.	20000 hr		
2.	23°C		
3.	355x100x1mm		

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