

## Nilit Nilamid B G4 FR HF 20% Glass Fiber Reinforced, Flame Retardant PA6

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , 20% Glass Fiber Filled

### Material Notes:

Description: Nilamid B G4 FR HF is a NYLON 6 based flame retardant compound that does not contain any halogen or red phosphorous. It has a good overall mechanical performance, has an excellent price/performance ratio and can be colored in almost any color. It does not cause any corrosion of or deposits on electrical contacts. Laser marking grades with a very good contrast are available. Key characteristics: UL 94 V2 at 0.75 mm Halogen and red phosphorous free Good overall mechanical performance Low density Colorable in a wide range of colors Easy processing, fast cycling No corrosion of or deposits on electrical contacts Information provided by NILIT.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Nilit-Nilamid-B-G4-FR-HF-20-Glass-Fiber-Reinforced-Flame-Retardant-PA6.php](http://www.lookpolymers.com/polymer_Nilit-Nilamid-B-G4-FR-HF-20-Glass-Fiber-Reinforced-Flame-Retardant-PA6.php)

Physical Properties	Metric	English	Comments
Density	1.32 g/cc	0.0477 lb/in <sup>3</sup>	ASTM D792, ISO 1183
Water Absorption	1.2 %	1.2 %	23°C, 24h in H <sub>2</sub> O; sim. ISO 62
Water Absorption at Saturation	6.5 %	6.5 %	sim. ISO 62
Linear Mold Shrinkage, Flow	0.0040 cm/cm	0.0040 in/in	Euronil
Linear Mold Shrinkage, Transverse	0.0060 cm/cm	0.0060 in/in	Euronil

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	80.0 MPa	11600 psi	ISO 527, ASTM D638
Elongation at Break	3.0 %	3.0 %	ISO 527, ASTM D638
Tensile Modulus	5.50 GPa	798 ksi	ISO 527, ASTM D638
Flexural Yield Strength	130 MPa	18900 psi	ISO 178, ASTM D790
	85.0 MPa @Temperature 90.0 °C	12300 psi @Temperature 194 °F	ISO 178, ASTM D790
Flexural Modulus	6.00 GPa	870 ksi	ISO 178, ASTM D790
	2.60 GPa @Temperature 90.0 °C	377 ksi @Temperature 194 °F	ISO 178, ASTM D790
Izod Impact, Notched (ISO)	3.00 kJ/m <sup>2</sup> @Temperature -30.0 °C	1.43 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 180/1A
	4.00 kJ/m <sup>2</sup> @Temperature 23.0 °C	1.90 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 180/1A

Mechanical Properties	Metric	English	Comments
Charpy Impact, Notched	0.500 J/cm <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	ISO 179

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	110 °C	230 °F	20,000 hr; IEC 216
Deflection Temperature at 0.46 MPa (66 psi)	205 °C	401 °F	ISO 75, ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	170 °C	338 °F	ISO 75, ASTM D648
Vicat Softening Point	206 °C	403 °F	49 N; ISO 306, ASTM D1525
	215 °C	419 °F	9.8 N; ISO 306, ASTM D1525
Flammability, UL94	V-2	V-2	
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	V-2	V-2	
	@Thickness 0.800 mm	@Thickness 0.0315 in	
	V-2	V-2	
	@Thickness 3.20 mm	@Thickness 0.126 in	
Oxygen Index	25 %	25 %	ASTM D2863
Glow Wire Test	960 °C	1760 °F	Glow Wire Flammability Index; IEC 694-2-12
	@Thickness 0.800 mm	@Thickness 0.0315 in	
	960 °C	1760 °F	Glow Wire Flammability Index; IEC 694-2-12
	@Thickness 3.20 mm	@Thickness 0.126 in	

Electrical Properties	Metric	English	Comments
Dielectric Strength	21.0 kV/mm	533 kV/in	ASTM D149
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Comparative Tracking Index	550 V	550 V	Sol. A; IEC 112, UL 746A
	@Thickness 3.20 mm	@Thickness 0.126 in	
	550 V	550 V	Sol. B; IEC 112, UL 746A
	@Thickness 3.20 mm	@Thickness 0.126 in	

Processing Properties	Metric	English	Comments
Nozzle Temperature	245 - 265 °C	473 - 509 °F	

Processing Properties	Metric	English	Comments
Zone 1	235 - 255 °C	450 - 491 °F	
Zone 2	240 - 265 °C	464 - 509 °F	
Zone 3	245 - 265 °C	473 - 509 °F	
Zone 4	245 - 265 °C	473 - 509 °F	
Melt Temperature	240 - 260 °C	464 - 500 °F	Do not melt above 275°C
Mold Temperature	60.0 - 80.0 °C	140 - 176 °F	80°C is Preferred
Drying Temperature	80.0 - 85.0 °C	176 - 185 °F	
Dry Time	4 hour	4 hour	
Injection Pressure	70.0 - 100 MPa	10200 - 14500 psi	

Descriptive Properties	Value	Comments
Clamping Force	in tons, 0.7 times the projected surface area in cm <sup>2</sup>	
Flammability Rating	SE	FMVSS No. 302, 355x100x1 mm
Heat Resistance - Ball Test	OK	at 125°C, IEC 309
	OK	at 165°C, IEC 309
Holding Pressure	90 MPa	
Needle Test	OK	IEC 695-2-2, 1 or 2 mm

## Contact Songhan Plastic Technology Co.,Ltd.

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