

## Nilit Nilamid A3 H G8 40% Glass Reinforced PA66

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 40% Glass Fiber Filled

### Material Notes:

Description: Nilamid A3 H G8 is a high strength material, that is used for structural applications. It is easy to mould, and shows outstanding stiffness and creep resistance, even at elevated temperatures. Key characteristics: High stiffness High strength Good impact strength Excellent thermal performance Good creep resistance Information provided by NILIT.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Nilit-Nilamid-A3-H-G8-40-Glass-Reinforced-PA66.php](http://www.lookpolymers.com/polymer_Nilit-Nilamid-A3-H-G8-40-Glass-Reinforced-PA66.php)

Physical Properties	Metric	English	Comments
Density	1.44 g/cc	0.0520 lb/in <sup>3</sup>	ASTM D792, ISO 1183
Water Absorption	0.60 %	0.60 %	23°C, 24h in H <sub>2</sub> O; sim. ISO 62
Water Absorption at Saturation	4.0 %	4.0 %	sim. ISO 62
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	Euronil
Linear Mold Shrinkage, Transverse	0.0050 cm/cm	0.0050 in/in	Euronil

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	205 MPa	29700 psi	ISO 527, ASTM D638
Elongation at Break	2.0 %	2.0 %	ISO 527, ASTM D638
Flexural Yield Strength	285 MPa	41300 psi	ISO 178, ASTM D790
	195 MPa	28300 psi	ISO 178, ASTM D790
	@Temperature 90.0 °C	@Temperature 194 °F	
Flexural Modulus	12.0 GPa	1740 ksi	ISO 178, ASTM D790
	7.50 GPa	1090 ksi	ISO 178, ASTM D790
	@Temperature 90.0 °C	@Temperature 194 °F	
Izod Impact, Notched (ISO)	12.0 kJ/m <sup>2</sup>	5.71 ft-lb/in <sup>2</sup>	ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	15.0 kJ/m <sup>2</sup>	7.14 ft-lb/in <sup>2</sup>	ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	6.50 J/cm <sup>2</sup>	30.9 ft-lb/in <sup>2</sup>	ISO 179
	5.20 J/cm <sup>2</sup>	24.7 ft-lb/in <sup>2</sup>	ISO 179

Mechanical Properties	@Temperature -30.0 °C Metric	@Temperature -22.0 °F English	Comments
Charpy Impact, Notched	1.30 J/cm <sup>2</sup>	6.19 ft-lb/in <sup>2</sup>	ISO 179
	1.10 J/cm <sup>2</sup>	5.24 ft-lb/in <sup>2</sup>	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	115 °C	239 °F	20,000 hr; IEC 216
Deflection Temperature at 0.46 MPa (66 psi)	262 °C	504 °F	ISO 75, ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	256 °C	493 °F	ISO 75, ASTM D648
Vicat Softening Point	255 °C	491 °F	49 N; ISO 306, ASTM D1525
	260 °C	500 °F	9.8 N; ISO 306, ASTM D1525
Flammability, UL94	HB	HB	
	@Thickness 0.800 mm	@Thickness 0.0315 in	
	HB	HB	
	@Thickness 3.20 mm	@Thickness 0.126 in	
Oxygen Index	27 %	27 %	ASTM D2863
Glow Wire Test	650 °C	1200 °F	Glow Wire Flammability Index; IEC 694-2-12
	@Thickness 0.800 mm	@Thickness 0.0315 in	
	650 °C	1200 °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	350 V	350 V	Sol. B; IEC 112, UL 746A
	@Thickness 3.20 mm	@Thickness 0.126 in	
	500 V	500 V	Sol. A; IEC 112, UL 746A
	@Thickness 3.20 mm	@Thickness 0.126 in	

Processing Properties	Metric	English	Comments
Nozzle Temperature	280 - 295 °C	536 - 563 °F	

Processing Properties	Metric	English	Comments
Zone 2	275 - 290 °C	527 - 554 °F	
Zone 3	280 - 295 °C	536 - 563 °F	
Zone 4	280 - 295 °C	536 - 563 °F	
Melt Temperature	275 - 300 °C	527 - 572 °F	Do not melt above 300°C
Mold Temperature	90.0 - 110 °C	194 - 230 °F	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>	
Heat Resistance - Ball Test	OK	at 125°C, IEC 309
	OK	at 165°C, IEC 309
Holding Pressure	90 MPa	

## Contact Songhan Plastic Technology Co.,Ltd.

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