

## Nilit Nilamid A3 H G3 15% Glass Reinforced PA66

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 20% Glass Fiber Filled

### Material Notes:

Description: Nilamid A3 H G3 is a general purpose, 15% glass fiber reinforced NYLON 66. This product combines good overall mechanical performance and impact strength with ease of processing. Key characteristics: Good overall mechanical performance Ease of processing Good surface finish Good thermal performance up to 140°C Good overall chemical resistance against most solvents and detergents Information provided by NILIT.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Nilit-Nilamid-A3-H-G3-15-Glass-Reinforced-PA66.php](http://www.lookpolymers.com/polymer_Nilit-Nilamid-A3-H-G3-15-Glass-Reinforced-PA66.php)

Physical Properties	Metric	English	Comments
Density	1.23 g/cc	0.0444 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	0.0060 cm/cm	0.0060 in/in	Euronil
Linear Mold Shrinkage, Transverse	0.0080 cm/cm	0.0080 in/in	Euronil

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	130 MPa	18900 psi	ISO 527, ASTM D638
Elongation at Break	3.0 %	3.0 %	ISO 527, ASTM D638
Flexural Yield Strength	170 MPa	24700 psi	ISO 178, ASTM D790
	95.0 MPa	13800 psi	ISO 178, ASTM D790
	@Temperature 90.0 °C	@Temperature 194 °F	
Flexural Modulus	5.70 GPa	827 ksi	ISO 178, ASTM D790
	3.00 GPa	435 ksi	ISO 178, ASTM D790
	@Temperature 90.0 °C	@Temperature 194 °F	
Izod Impact, Notched (ISO)	5.00 kJ/m <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	5.50 kJ/m <sup>2</sup>	2.62 ft-lb/in <sup>2</sup>	ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	4.30 J/cm <sup>2</sup>	20.5 ft-lb/in <sup>2</sup>	ISO 179
	4.00 J/cm <sup>2</sup>	19.0 ft-lb/in <sup>2</sup>	

Mechanical Properties	Metric @Temperature -30.0 °C	English @Temperature -22.0 °F	ISO 179 Comments
Charpy Impact, Notched	0.800 J/cm <sup>2</sup>	3.81 ft-lb/in <sup>2</sup>	ISO 179
	0.600 J/cm <sup>2</sup> @Temperature -30.0 °C	2.86 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	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)	250 °C	482 °F	ISO 75, ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	245 °C	473 °F	ISO 75, ASTM D648
Vicat Softening Point	245 °C	473 °F	49 N; ISO 306, ASTM D1525
	255 °C	491 °F	9.8 N; ISO 306, ASTM D1525
Flammability, UL94	HB @Thickness 0.800 mm	HB @Thickness 0.0315 in	
	HB @Thickness 3.20 mm	HB @Thickness 0.126 in	
Oxygen Index	24 %	24 %	ASTM D2863
Glow Wire Test	650 °C @Thickness 3.20 mm	1200 °F @Thickness 0.126 in	Glow Wire Flammability Index; IEC 694-2-12
	650 °C @Thickness 0.800 mm	1200 °F @Thickness 0.0315 in	Glow Wire Flammability Index; IEC 694-2-12

Electrical Properties	Metric	English	Comments
Dielectric Strength	21.0 kV/mm @Thickness 2.00 mm	533 kV/in @Thickness 0.0787 in	ASTM D149
Comparative Tracking Index	500 V @Thickness 3.20 mm	500 V @Thickness 0.126 in	Sol. B; IEC 112, UL 746A
	600 V @Thickness 3.20 mm	600 V @Thickness 0.126 in	Sol. A; IEC 112, UL 746A

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

Processing Properties	Metric	English	Comments
Zone 1	270 - 290 °C	518 - 554 °F	hopper
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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