

## Nilit Nilamid A3 H7 G7 35% Glass Reinforced PA66

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

### Material Notes:

Description: Nilamid A3 H7 G7 is a 35% glass fiber reinforced NYLON 66 with a high heat stabilization. This product combines good overall mechanical performance and impact strength with ease of processing. It is used for applications which see extensive use at temperatures of 140°C to 150°C. 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-H7-G7-35-Glass-Reinforced-PA66.php](http://www.lookpolymers.com/polymer_Nilit-Nilamid-A3-H7-G7-35-Glass-Reinforced-PA66.php)

Physical Properties	Metric	English	Comments
Density	1.41 g/cc	0.0509 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	4.5 %	4.5 %	sim. ISO 62
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	Euronil
Linear Mold Shrinkage, Transverse	0.0040 cm/cm	0.0040 in/in	Euronil

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	180 MPa	26100 psi	ISO 527, ASTM D638
Elongation at Break	2.0 %	2.0 %	ISO 527, ASTM D638
Flexural Yield Strength	280 MPa	40600 psi	ISO 178, ASTM D790
Flexural Modulus	10.0 GPa	1450 ksi	ISO 178, ASTM D790
	6.50 GPa	943 ksi	ISO 178, ASTM D790
	@Temperature 90.0 °C	@Temperature 194 °F	
Izod Impact, Notched (ISO)	11.0 kJ/m <sup>2</sup>	5.23 ft-lb/in <sup>2</sup>	ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	5.50 J/cm <sup>2</sup>	26.2 ft-lb/in <sup>2</sup>	ISO 179
Charpy Impact, Notched	1.20 J/cm <sup>2</sup>	5.71 ft-lb/in <sup>2</sup>	ISO 179

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	140 °C	284 °F	20,000 hr; IEC 216
Deflection Temperature at 0.46 MPa (66 psi)	260 °C	500 °F	ISO 75, ASTM D648

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	252 °C	486 °F	ISO 15, ASTM D648
Vicat Softening Point	253 °C	487 °F	49 N; ISO 306, ASTM D1525
	258 °C	496 °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	25 %	25 %	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	325 V	325 V	Sol. B; IEC 112, UL 746A
	@Thickness 3.20 mm	@Thickness 0.126 in	
	450 V	450 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	
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	

Processing Properties	Metric	English	Comments
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	

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