

## Nilit Nilamid A3 N H2 Nucleated, Heat Stabilized Nylon 66

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, Heat Stabilized

### Material Notes:

Description: Nilamid A3 N H2 is a nucleated, heat stabilized NYLON 66 with excellent flow characteristics and very fast cycle time. It is widely used throughout many industries for mass production articles that require fast cycle times and good resistance against thermal aging, like for instance terminal blocks or automotive connectors. Key characteristics: Excellent flow Fast cycle time High elongation Good mould release High toughness Good thermal performance UL 94 V2 listed down to 0.75 mm Information provided by NILIT.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Nilit-Nilamid-A3-N-H2-Nucleated-Heat-Stabilized-Nylon-66.php](http://www.lookpolymers.com/polymer_Nilit-Nilamid-A3-N-H2-Nucleated-Heat-Stabilized-Nylon-66.php)

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 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	8.0 %	8.0 %	sim. ISO 62
Linear Mold Shrinkage, Flow	0.013 cm/cm	0.013 in/in	Euronil
Linear Mold Shrinkage, Transverse	0.013 cm/cm	0.013 in/in	Euronil

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	85.0 MPa	12300 psi	ISO 527, ASTM D638
Elongation at Break	>= 40 %	>= 40 %	ISO 527, ASTM D638
Elongation at Yield	4.0 %	4.0 %	ISO 527, ASTM D638
Tensile Modulus	3.00 GPa	435 ksi	ISO 527, ASTM D638
Flexural Yield Strength	115 MPa	16700 psi	ISO 178, ASTM D790
	35.0 MPa	5080 psi	ISO 178, ASTM D790
	@Temperature 90.0 °C	@Temperature 194 °F	
Flexural Modulus	3.20 GPa	464 ksi	ISO 178, ASTM D790
	0.750 GPa	109 ksi	ISO 178, ASTM D790
	@Temperature 90.0 °C	@Temperature 194 °F	
Izod Impact, Notched (ISO)	3.50 kJ/m <sup>2</sup>	1.67 ft-lb/in <sup>2</sup>	ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	4.50 kJ/m <sup>2</sup>	2.14 ft-lb/in <sup>2</sup>	ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Mechanical Properties	Metric	English	Comments
Charpy Impact, Unnotched	NB	NB	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	0.550 J/cm <sup>2</sup>	2.62 ft-lb/in <sup>2</sup>	ISO 179
	0.400 J/cm <sup>2</sup>	1.90 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)	235 °C	455 °F	ISO 75, ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	93.0 °C	199 °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	V-2	V-2	
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	V-2	V-2	
	@Thickness 0.400 mm	@Thickness 0.0157 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	26 %	26 %	ASTM D2863
Glow Wire Test	850 °C	1560 °F	Glow Wire Flammability Index; IEC 694-2-12
	@Thickness 0.800 mm	@Thickness 0.0315 in	
	850 °C	1560 °F	Glow Wire Flammability Index; IEC 694-2-12
	@Thickness 3.20 mm	@Thickness 0.126 in	

Electrical Properties	Metric	English	Comments
Dielectric Strength	18.0 kV/mm	457 kV/in	ASTM D149
	@Thickness 2.00 mm	@Thickness 0.0787 in	

Electrical Properties Comparative Tracking Index	Metric	English	Comments
	@Thickness 3.20 mm	@Thickness 0.126 in	Sol. B; IEC 112, UL 746A
	600 V	600 V	Sol. A; IEC 112, UL 746A
	@Thickness 3.20 mm	@Thickness 0.126 in	

Processing Properties	Metric	English	Comments
Nozzle Temperature	265 - 295 °C	509 - 563 °F	
Zone 1	260 - 290 °C	500 - 554 °F	hopper
Zone 2	265 - 290 °C	509 - 554 °F	
Zone 3	265 - 290 °C	509 - 554 °F	
Zone 4	265 - 295 °C	509 - 563 °F	
Melt Temperature	270 - 290 °C	518 - 554 °F	Do not melt above 300°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	

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