

Nilit Nilamid A G10 FR PH1 50% Glass Fiber Reinforced, Flame Retardant PA66 (with Red Phosphorous)

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 50% Glass Fiber Filled

Material Notes:

Description: Nilamid A G10 FR PH1 was developed specifically for highly loaded, structural applications in the electrical industry. It combines extremely high mechanical performance with flame retardancy. Typical applications include high loaded circuit breaker components, isolator blocks and housings. Key characteristics: Flame retardant Extremely high mechanical performance High CTI Low phosphate release Information provided by NILIT.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Nilit-Nilamid-A-G10-FR-PH1-50-Glass-Fiber-Reinforced-Flame-Retardant-PA66-with-Red-Phosphorous.php

Physical Properties	Metric	English	Comments
Density	1.58 g/cc	0.0571 lb/in ³	ASTM D792, ISO 1183
Water Absorption	0.50 %	0.50 %	23°C, 24h in H ₂ O; sim. ISO 62
Water Absorption at Saturation	2.5 %	2.5 %	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	210 MPa	30500 psi	ISO 527, ASTM D638
Elongation at Break	1.5 %	1.5 %	
Tensile Modulus	15.0 GPa	2180 ksi	ISO 527, ASTM D638
Flexural Yield Strength	340 MPa	49300 psi	ISO 178, ASTM D790
	185 MPa @Temperature 90.0 °C	26800 psi @Temperature 194 °F	ISO 178, ASTM D790
Flexural Modulus	14.0 GPa	2030 ksi	ISO 178, ASTM D790
	7.00 GPa @Temperature 90.0 °C	1020 ksi @Temperature 194 °F	ISO 178, ASTM D790
Izod Impact, Notched (ISO)	11.0 kJ/m ² @Temperature -30.0 °C	5.23 ft-lb/in ² @Temperature -22.0 °F	ISO 180/1A
	13.5 kJ/m ²	6.42 ft-lb/in ²	ISO 180/1A

Mechanical Properties	@Temperature 23.0 °C Metric	@Temperature 73.4 °F English	Comments
Charpy Impact Unnotched	5.50 J/cm ²	26.2 ft-lb/in ²	ISO 179
	4.60 J/cm ²	21.9 ft-lb/in ²	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	0.500 J/cm ²	2.38 ft-lb/in ²	ISO 179
	0.350 J/cm ²	1.67 ft-lb/in ²	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	125 °C	257 °F	20,000 hr; IEC 216
Deflection Temperature at 0.46 MPa (66 psi)	261 °C	502 °F	ISO 75, ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	255 °C	491 °F	ISO 75, ASTM D648
Vicat Softening Point	254 °C	489 °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	
	V-0	V-0	
	@Thickness 3.20 mm	@Thickness 0.126 in	
	V-0	V-0	
	@Thickness 1.60 mm	@Thickness 0.0630 in	
Oxygen Index	32 %	32 %	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

Electrical Properties	@Thickness 3.20 mm Metric	@Thickness 0.126 in English	Comments
	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	275 - 285 °C	527 - 545 °F	
Zone 1	260 - 280 °C	500 - 536 °F	hopper
Zone 2	260 - 280 °C	500 - 536 °F	
Zone 3	270 - 280 °C	518 - 536 °F	
Zone 4	275 - 285 °C	527 - 545 °F	
Melt Temperature	275 - 290 °C	527 - 554 °F	Do not melt above 290°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 ²	
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.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China