

LG Chemical LUMID GN1001BF PA66, Halogen Free Flame Retardant

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, Unreinforced

Material Notes:

Feature: Injection Molding, PA66, Halogen Free Flame Retardant
Application: Connectors
CAS No. 32131-17-2, 25038-54-4 and 37640-57-6
Information provided by LG Chemical

Order this product through the following link:

http://www.lookpolymers.com/polymer_LG-Chemical-LUMID-GN1001BF-PA66-Halogen-Free-Flame-Retardant.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.14 g/cc	1.14 g/cc	ASTM D792
Water Absorption	1.3 % @Temperature 23.0 Â°C, Time 86400 sec	1.3 % @Temperature 73.4 Â°F, Time 24.0 hour	ASTM D570
Maximum Moisture Content	0.10	0.10	Injection Molding
Linear Mold Shrinkage, Flow	0.0090 - 0.016 cm/cm @Thickness 3.20 mm	0.0090 - 0.016 in/in @Thickness 0.126 in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	120	120	ASTM D785
Tensile Strength, Yield	78.5 MPa @Thickness 3.20 mm	11400 psi @Thickness 0.126 in	50mm/min; ASTM D638
Elongation at Break	30 % @Thickness 3.20 mm	30 % @Thickness 0.126 in	50mm/min; ASTM D638
Flexural Yield Strength	113 MPa @Thickness 6.40 mm	16400 psi @Thickness 0.252 in	2.8mm/min; ASTM D790
Flexural Modulus	3.04 GPa @Thickness 6.40 mm	441 ksi @Thickness 0.252 in	2.8mm/min; ASTM D790
Izod Impact, Notched	0.490 J/cm @Thickness 6.40 mm, Temperature 23.0 Â°C	0.918 ft-lb/in @Thickness 0.252 in, Temperature 73.4 Â°F	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	70.0 Âµm/m-Â°C	38.9 Âµin/in-Â°F	ASTM D696

Melting Point Thermal Properties	260 Â°C Metric	500 Â°F English	ASTM D3418 Comments
Deflection Temperature at 0.46 MPa (66 psi)	240 Â°C @Thickness 6.40 mm	464 Â°F @Thickness 0.252 in	Unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	85.0 Â°C @Thickness 6.40 mm	185 Â°F @Thickness 0.252 in	Unannealed; ASTM D648
UL RTI, Electrical	65.0 Â°C @Thickness 0.750 - 0.820 mm	149 Â°F @Thickness 0.0295 - 0.0323 in	
UL RTI, Mechanical with Impact	65.0 Â°C @Thickness 0.750 - 0.820 mm	149 Â°F @Thickness 0.0295 - 0.0323 in	
UL RTI, Mechanical without Impact	65.0 Â°C @Thickness 0.750 - 0.820 mm	149 Â°F @Thickness 0.0295 - 0.0323 in	
Flammability, UL94	V-0 @Thickness >=0.800 mm	V-0 @Thickness >=0.0315 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	ASTM D257
Dielectric Constant	3.0 @Frequency 1.00e+6 Hz	3.0 @Frequency 1.00e+6 Hz	ASTM D150
Dielectric Strength	22.0 kV/mm @Thickness 1.00 mm	559 kV/in @Thickness 0.0394 in	ASTM D149
Arc Resistance	180 - 240 sec	180 - 240 sec	ASTM D495
Comparative Tracking Index	>= 600 V	>= 600 V	
Hot Wire Ignition, HWI	15 - 30 sec @Thickness 0.750 - 0.820 mm	15 - 30 sec @Thickness 0.0295 - 0.0323 in	
High Amp Arc Ignition, HAI	>= 120 arcs @Thickness 0.750 mm	>= 120 arcs @Thickness 0.0295 in	
High Voltage Arc-Tracking Rate, HVTR	25.4 - 50.0 mm/min	1.00 - 1.97 in/min	

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	255 - 280 Â°C	491 - 536 Â°F	Injection Molding
Middle Barrel Temperature	260 - 275 Â°C	500 - 527 Â°F	Injection Molding
Front Barrel Temperature	260 - 275 Â°C	500 - 527 Â°F	Injection Molding
Nozzle Temperature	270 - 280 Â°C	518 - 536 Â°F	Injection Molding
Melt Temperature	260 - 280 Â°C	500 - 536 Â°F	Injection Molding
Mold Temperature	60.0 - 90.0 Â°C	140 - 194 Â°F	Injection Molding
Drying Temperature	80.0 - 100 Â°C	176 - 212 Â°F	Injection Molding
Dry Time	4.00 - 5.00 hour	4.00 - 5.00 hour	Injection Molding
Back Pressure	29.4 - 58.8 MPa	4260 - 8530 psi	Injection Molding
Screw Speed	30 - 60 rpm	30 - 60 rpm	Injection Molding

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