

Polymer Resources NY6-GP1-[color]-H General Purpose Nylon 6, Heat Stabilized

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Heat Stabilized , Nylon 6, Unreinforced

Material Notes:

General Purpose Nylon 6, Heat Stabilized, Lubricated Process: Injection Molding Notes: All physical, mechanical and thermal testing conducted on 1/8-inch thick, un-pigmented, test samples. Nylon grades are tested dry as molded (DAM). Information provided by Polymer Resources Corporation.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Polymer-Resources-NY6-GP1-color-H-General-Purpose-Nylon-6-Heat-Stabilized.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.13 g/cc	1.13 g/cc	ASTM D792
Linear Mold Shrinkage	0.011 - 0.015 cm/cm	0.011 - 0.015 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	75.8 MPa	11000 psi	ASTM D638
Tensile Strength, Yield	75.8 MPa	11000 psi	ASTM D638
Flexural Strength	106 MPa	15400 psi	ASTM D790
Flexural Modulus	2.76 GPa	400 ksi	ASTM D790
Izod Impact, Notched	0.534 J/cm @Temperature 22.8 °C	1.00 ft-lb/in @Temperature 73.0 °F	ASTM D256
Gardner Impact	36.2 J	26.7 ft-lb	ASTM D3029

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	177 °C	350 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	65.6 °C	150 °F	ASTM D648
UL RTI, Electrical	125 °C @Thickness 0.800 mm	257 °F @Thickness 0.0315 in	UL 746
	125 °C @Thickness 1.50 mm	257 °F @Thickness 0.0591 in	UL 746
	125 °C @Thickness 3.00 mm	257 °F @Thickness 0.118 in	UL 746

Thermal Properties	^{125 °C} Metric	^{257 °F} English	Comments UL 746
	@Thickness 5.99 mm	@Thickness 0.236 in	
UL RTI, Mechanical with Impact	85.0 °C	185 °F	UL 746
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	85.0 °C	185 °F	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	
	85.0 °C	185 °F	UL 746
	@Thickness 5.99 mm	@Thickness 0.236 in	
UL RTI, Mechanical without Impact	75.0 °C	167 °F	UL 746
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	75.0 °C	167 °F	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	
	75.0 °C	167 °F	UL 746
	@Thickness 5.99 mm	@Thickness 0.236 in	
Flammability, UL94	V-2	V-2	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	V-2	V-2	
	@Thickness 3.00 mm	@Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+11 ohm-cm	1.00e+11 ohm-cm	ASTM D257
Dielectric Strength	29.1 kV/mm	740 kV/in	ASTM D149
Comparative Tracking Index	>= 600 V	>= 600 V	UL 746
Hot Wire Ignition, HWI	15 - 30 sec	15 - 30 sec	UL 746
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	30 - 60 sec	30 - 60 sec	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	
	30 - 60 sec	30 - 60 sec	UL 746
	@Thickness 5.99 mm	@Thickness 0.236 in	
High Amp Arc Ignition, HAI	>= 120 arcs	>= 120 arcs	UL 746
	@Thickness 1.50 mm	@Thickness 0.0591 in	

Electrical Properties	≥ 120 arcs Metric	≥ 120 arcs English	Comments UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	
	≥ 120 arcs	≥ 120 arcs	UL 746
	@Thickness 5.99 mm	@Thickness 0.236 in	
High Voltage Arc-Tracking Rate, HVTR	0.000 - 10.0 mm/min	0.000 - 0.394 in/min	UL 746

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	221 - 246 °C	430 - 475 °F	
Middle Barrel Temperature	238 - 254 °C	460 - 490 °F	
Front Barrel Temperature	243 - 260 °C	470 - 500 °F	
Melt Temperature	238 - 279 °C	460 - 535 °F	
Mold Temperature	65.6 - 82.2 °C	150 - 180 °F	
Drying Temperature	73.9 - 85.0 °C	165 - 185 °F	
Dry Time	3.00 - 4.00 hour	3.00 - 4.00 hour	

Descriptive Properties	Value	Comments
Vent	0.0003	

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