



Wednesday, August 30, 2023

PRL NY6-GP1-(color)H
Polymer Resources Ltd. - Polyamide 6

Units English ▼

Action	Legend (Open)

General Information

General			
Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Heat Stabilizer	• Lubricant	
Features	• General Purpose	• Heat Stabilized	• Lubricated
RoHS Compliance	• RoHS Compliant		
UL File Number	• E113219		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.13		ASTM D792
Molding Shrinkage - Flow (0.125 in)	0.011 to 0.015	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, 0.125 in)	11000	psi	ASTM D638
Tensile Strength (Break, 0.125 in)	11000	psi	ASTM D638
Flexural Modulus (0.125 in)	400000	psi	ASTM D790
Flexural Strength (0.125 in)	15400	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	1.0	ft·lb/in	ASTM D256
Gardner Impact (0.125 in)	320	in·lb	ASTM D3029
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in)	350	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	150	°F	ASTM D648
RTI Elec			UL 746B
0.031 in	257	°F	
0.06 in	257	°F	
0.12 in	257	°F	
0.24 in	257	°F	
RTI Imp			UL 746B
0.06 in	167	°F	
0.12 in	167	°F	
0.24 in	167	°F	
RTI Str			UL 746B
0.06 in	185	°F	
0.12 in	185	°F	
0.24 in	185	°F	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+11	ohms·cm	ASTM D257
Dielectric Strength (0.0315 in)	740	V/mil	ASTM D149
Comparative Tracking Index (CTI) (0.0315 in)	PLC 0		UL 746A
High Amp Arc Ignition (HAI)			UL 746A
0.06 in	PLC 0		
0.12 in	PLC 0		
0.24 in	PLC 0		
High Voltage Arc Tracking Rate (HVTR) (0.0315 in)	PLC 0		UL 746A
Hot-wire Ignition (HWI)			UL 746A

0.06 in	PLC 3
0.12 in	PLC 2
0.24 in	PLC 2

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.031 in	V-2		
0.06 in	V-2		
0.12 in	V-2		
0.24 in	V-2		

Processing Information			
Injection	Nominal Value	Unit	
Drying Temperature	165 to 185	°F	
Drying Time	3.0 to 4.0	hr	
Drying Time, Maximum	8.0	hr	
Rear Temperature	430 to 475	°F	
Middle Temperature	460 to 490	°F	
Front Temperature	470 to 500	°F	
Processing (Melt) Temp	460 to 535	°F	
Mold Temperature	150 to 180	°F	

Notes

¹ Typical properties: these are not to be construed as specifications.

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