



Wednesday, August 30, 2023

PRL TP-FR-G30

Units English ▼

Polymer Resources Ltd. - Polybutylene Terephthalate

Action	Legend (Open)
 	

General Information

General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Additive	• Flame Retardant		
Features	• Flame Retardant	• High Heat Resistance	• Self Extinguishing
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	1.62		ASTM D792
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	9.0 to 20	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	4.0E-3 to 8.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, 0.125 in)	17500	psi	ASTM D638
Tensile Strength (Break, 0.125 in)	17500	psi	ASTM D638
Flexural Modulus (0.125 in)	1.40E+6	psi	ASTM D790
Flexural Strength (Break, 0.125 in)	27000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	1.2	ft-lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in)	410	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	390	°F	ASTM D648
RTI Elec			UL 746B
0.03 in	284	°F	
0.06 in	284	°F	
0.09 in	284	°F	
0.12 in	284	°F	
RTI Imp			UL 746B
0.03 in	266	°F	
0.06 in	266	°F	
0.09 in	266	°F	
0.12 in	266	°F	
RTI Str			UL 746B
0.03 in	284	°F	
0.06 in	284	°F	
0.09 in	284	°F	
0.12 in	284	°F	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms-cm	ASTM D257
Dielectric Strength (0.0335 in)	580	V/mil	ASTM D149
Arc Resistance (0.0335 in)	PLC 6		ASTM D495
Comparative Tracking Index (CTI) (0.0335 in)	PLC 2		UL 746A
High Amp Arc Ignition (HAI)			UL 746A
0.03 in	PLC 0		

0.06 in	PLC 0	
0.09 in	PLC 0	
0.12 in	PLC 0	
High Voltage Arc Tracking Rate (HVTR) (0.0335 in)	PLC 0	UL 746A
Hot-wire Ignition (HWI)		UL 746A
0.03 in	PLC 3	
0.06 in	PLC 2	
0.09 in	PLC 2	
0.12 in	PLC 1	
Flammability	Nominal Value	Unit Test Method
Flame Rating		UL 94
0.03 in	V-0	
0.06 in	V-0	
0.09 in	• V-0 • 5VA	
0.12 in	• V-0 • 5VA	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	240 to 250	°F
Drying Time	3.0 to 4.0	hr
Drying Time, Maximum	8.0	hr
Rear Temperature	460 to 490	°F
Middle Temperature	470 to 500	°F
Front Temperature	480 to 510	°F
Processing (Melt) Temp	450 to 500	°F
Mold Temperature	160 to 190	°F

Notes

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

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