



Wednesday, August 30, 2023

PRL TP-GP2

Polymer Resources Ltd. - Polybutylene Terephthalate

Units English ▼

Action	Legend (Open)

General Information

General	
Material Status	<ul style="list-style-type: none">Commercial: Active
Availability	<ul style="list-style-type: none">North America
Features	<ul style="list-style-type: none">General Purpose
RoHS Compliance	<ul style="list-style-type: none">RoHS Compliant
UL File Number	<ul style="list-style-type: none">E113219
Forms	<ul style="list-style-type: none">Pellets
Processing Method	<ul style="list-style-type: none">Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.31		ASTM D792
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	12 to 20	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	0.016 to 0.022	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, 0.125 in)	7500	psi	ASTM D638
Tensile Strength (Break, 0.125 in)	7500	psi	ASTM D638
Flexural Modulus (0.125 in)	335000	psi	ASTM D790
Flexural Strength (Break, 0.125 in)	11500	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)	300	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	140	°F	ASTM D648
RTI Elec			UL 746B
0.06 in	266	°F	
0.12 in	266	°F	
RTI Imp			UL 746B
0.06 in	248	°F	
0.12 in	248	°F	
RTI Str			UL 746B
0.06 in	266	°F	
0.12 in	266	°F	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength (0.0591 in)	760	V/mil	ASTM D149
Arc Resistance (0.0591 in)	PLC 5		ASTM D495
Comparative Tracking Index (CTI) (0.0591 in)	PLC 0		UL 746A
High Amp Arc Ignition (HAI)			UL 746A
0.06 in	PLC 0		
0.12 in	PLC 0		
High Voltage Arc Tracking Rate (HVTR) (0.0591 in)	PLC 1		UL 746A
Hot-wire Ignition (HWI)			UL 746A
0.06 in	PLC 3		
0.12 in	PLC 3		
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94

0.06 in	HB
0.12 in	HB

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	450 to 480	°F
Middle Temperature	460 to 490	°F
Front Temperature	470 to 500	°F
Processing (Melt) Temp	450 to 500	°F
Mold Temperature	110 to 170	°F

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

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