



Wednesday, August 30, 2023

PRL TP-FR2

Polymer Resources Ltd. - Polybutylene Terephthalate

Units English ▼

Action	Legend (Open)

General Information

General		
Material Status	• Commercial: Active	
Availability	• North America	
Additive	• Flame Retardant	
Features	• Flame Retardant	• 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	1.39		ASTM D792
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	10 to 18	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	0.015 to 0.020	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, 0.125 in)	8400	psi	ASTM D638
Tensile Strength (Break, 0.125 in)	8400	psi	ASTM D638
Flexural Modulus (0.125 in)	375000	psi	ASTM D790
Flexural Strength (0.125 in)	14000	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)	155	°F	ASTM D648
RTI Elec			UL 746B
0.031 in	266	°F	
0.06 in	266	°F	
0.12 in	266	°F	
RTI Imp			UL 746B
0.031 in	248	°F	
0.06 in	248	°F	
0.12 in	248	°F	
RTI Str			UL 746B
0.031 in	266	°F	
0.06 in	266	°F	
0.12 in	266	°F	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength (0.0315 in)	990	V/mil	ASTM D149
Arc Resistance (0.0315 in)	PLC 6		ASTM D495
Comparative Tracking Index (CTI) (0.0315 in)	PLC 2		UL 746A
High Amp Arc Ignition (HAI)			UL 746A
0.03 in	PLC 0		
0.06 in	PLC 0		
0.12 in	PLC 0		
High Voltage Arc Tracking Rate (HVTR) (0.0315 in)	PLC 3		UL 746A

Hot-wire Ignition (HWI)		UL 746A
0.03 in	PLC 4	
0.06 in	PLC 3	
0.12 in	PLC 2	
Flammability	Nominal Value	Unit Test Method
Flame Rating		UL 94
0.031 in, ALL	V-0	
0.06 in, ALL	V-0	
0.12 in, ALL	• 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	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 140	°F

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

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