Polymer Resources
Classic® Engineering Plastic Compounds

Wednesday, August 30, 2023

PRL TP-G30

Polymer Resources Ltd. - *Polybutylene Terephthalate*

Units English

Action **Legend (Open)**

General Information

General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Good Dimensional Stability	• Good Stiffness	• High Heat Resistance
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	1.52		ASTM D792
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	8.0 to 20	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	6.0E-3 to 9.0E-3	in/in	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield, 0.125 in)	17000	psi	ASTM D638
Tensile Strength (Break, 0.125 in)	17000	psi	ASTM D638
Flexural Modulus (0.125 in)	1.10E+6	psi	ASTM D790
Flexural Strength (Break, 0.125 in)	28000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F, 0.125 in)	1.0	ft·lb/in	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in)	425	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	395	°F	ASTM D648
RTI Elec			UL 746B
0.06 in	167	°F	
0.12 in	167	°F	
RTI Imp			UL 746B
0.06 in	167	°F	
0.12 in	167	°F	
RTI Str			UL 746B
0.06 in	167	°F	
0.12 in	167	°F	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Comparative Tracking Index (CTI) (0.0591 in)	PLC 1		UL 746A
High Amp Arc Ignition (HAI)			UL 746A
0.06 in	PLC 2		
0.12 in	PLC 2		
Hot-wire Ignition (HWI)			UL 746A
0.06 in	PLC 2		
0.12 in	PLC 1		
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	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	150 to 190	°F

Notes

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