



Wednesday, August 30, 2023

PRL TPSF-FRG10

Polymer Resources Ltd. - Polybutylene Terephthalate

Units English ▼

Action	Legend (Open)
 	

General Information

General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber, 10% Filler by Weight		
Additive	• Flame Retardant		
Features	• Chemical Resistant	• Foamable	• Medium Heat Resistance
	• Flame Retardant	• Low Warpage	• Self Extinguishing
Uses	• Structural Foam		
RoHS Compliance	• RoHS Compliant		
UL File Number	• E113219		
Forms	• Pellets		
Processing Method	• Foam Processing		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.27		ASTM D792
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	5.0 to 15	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	4.0E-3 to 6.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, 0.125 in)	10000	psi	ASTM D638
Tensile Strength (Break, 0.125 in)	10000	psi	ASTM D638
Flexural Modulus (0.125 in)	420000	psi	ASTM D790
Flexural Strength (0.125 in)	14800	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)	280	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	250	°F	ASTM D648
RTI Elec (0.21 to 0.26 in)	167	°F	UL 746B
RTI Imp (0.21 to 0.26 in)	167	°F	UL 746B
RTI Str (0.21 to 0.26 in)	167	°F	UL 746B
Electrical	Nominal Value	Unit	Test Method
High Amp Arc Ignition (HAI) (0.21 to 0.26 in)	PLC 0		UL 746A
Hot-wire Ignition (HWI) (0.21 to 0.26 in)	PLC 1		UL 746A
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.21 to 0.26 in)	• V-0 • 5VA		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180 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	480 to 500	°F
Mold Temperature	160 to 200	°F

Notes

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

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