

# Polymer Resources

Classic® Engineering Plastic Compounds

Wednesday, August 30, 2023

## PRL TPSF-FRG10

Units 

Polymer Resources Ltd. - Polybutylene Terephthalate

Action

Legend 

### General Information

#### General

Material Status	<ul style="list-style-type: none"> <li>Commercial: Active</li> </ul>		
Availability	<ul style="list-style-type: none"> <li>North America</li> </ul>		
Filler / Reinforcement	<ul style="list-style-type: none"> <li>Glass Fiber, 10% Filler by Weight</li> </ul>		
Additive	<ul style="list-style-type: none"> <li>Flame Retardant</li> </ul>		
Features	<ul style="list-style-type: none"> <li>Chemical Resistant</li> <li>Flame Retardant</li> </ul>	<ul style="list-style-type: none"> <li>Foamable</li> <li>Low Warpage</li> </ul>	<ul style="list-style-type: none"> <li>Medium Heat Resistance</li> <li>Self Extinguishing</li> </ul>
Uses	<ul style="list-style-type: none"> <li>Structural Foam</li> </ul>		
RoHS Compliance	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>		
UL File Number	<ul style="list-style-type: none"> <li>E113219</li> </ul>		
Forms	<ul style="list-style-type: none"> <li>Pellets</li> </ul>		
Processing Method	<ul style="list-style-type: none"> <li>Foam Processing</li> </ul>		

### ASTM & ISO Properties <sup>1</sup>

	Nominal Value	Unit	Test Method
<b>Physical</b>			
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
<b>Mechanical</b>			
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
<b>Impact</b>			
Notched Izod Impact (73°F, 0.125 in)	1.0	ft-lb/in	ASTM D256
<b>Thermal</b>			
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
<b>Electrical</b>			
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
<b>Flammability</b>			
Flame Rating (0.21 to 0.26 in)	<ul style="list-style-type: none"> <li>• V-0</li> <li>• 5VA</li> </ul>		UL 94

### Processing Information

	Nominal Value	Unit	Test Method
<b>Injection</b>			
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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