

Polymer Resources



Classic® Engineering Plastic Compounds

Wednesday, August 30, 2023

PRL PC-GP1-TFE10

Polymer Resources Ltd. - Polycarbonate

Units

Action

Legend 

General Information

General

Material Status	<ul style="list-style-type: none"> Commercial: Active 		
Availability	<ul style="list-style-type: none"> North America 		
Additive	<ul style="list-style-type: none"> PTFE Lubricant: 10% 		
Features	<ul style="list-style-type: none"> General Purpose 	<ul style="list-style-type: none"> Medium Flow 	<ul style="list-style-type: none"> Wear Resistant
RoHS Compliance	<ul style="list-style-type: none"> RoHS Compliant 		
Forms	<ul style="list-style-type: none"> Pellets 		
Processing Method	<ul style="list-style-type: none"> Injection Molding 		

ASTM & ISO Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.22		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	7.0 to 12	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	5.0E-3 to 7.0E-3	in/in	ASTM D955
Mechanical			
Tensile Strength (Yield, 0.125 in)	8000	psi	ASTM D638
Tensile Strength (Break, 0.125 in)	8000	psi	ASTM D638
Flexural Modulus (0.125 in)	300000	psi	ASTM D790
Flexural Strength (0.125 in)	12000	psi	ASTM D790
Impact			
Notched Izod Impact (73°F, 0.125 in)	3.0	ft-lb/in	ASTM D256
Gardner Impact (0.125 in)	320	in-lb	ASTM D3029
Thermal			
Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in)	278	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	267	°F	ASTM D648

Processing Information

	Nominal Value	Unit
Injection		
Drying Temperature	245 to 255	°F
Drying Time	3.0 to 4.0	hr
Drying Time, Maximum	8.0	hr
Rear Temperature	550 to 590	°F
Middle Temperature	570 to 610	°F
Front Temperature	590 to 630	°F
Processing (Melt) Temp	600 to 650	°F
Mold Temperature	180 to 240	°F

Notes

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

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