



Wednesday, August 30, 2023

PRL PC-G20-(color)-1

Polymer Resources Ltd. - Polycarbonate

Units English ▼

Action

Legend ([Open](#))

General Information

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
Additive	• Mold Release
Features	• Good Mold Release
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	1.35		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	4.0 to 10	g/10 min	ASTM D1238
Molding Shrinkage - Flow	1.0E-3 to 4.0E-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)	750000	psi	ASTM D790
Flexural Strength (0.125 in)	18000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	1.5	ft-lb/in	ASTM D256
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)	285	°F	ASTM D648
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.07 in	V-2		
0.12 in	V-0		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	245 to 255	°F
Drying Time	3.0 to 4.0	hr
Drying Time, Maximum	8.0	hr
Rear Temperature	560 to 600	°F
Middle Temperature	580 to 620	°F
Front Temperature	600 to 640	°F
Processing (Melt) Temp	575 to 625	°F
Mold Temperature	180 to 240	°F

Notes

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

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