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Polymer Resources
Classic® Engineering Plastic Compounds

Wednesday, August 30, 2023

PRL PC/TP-FR2

Polymer Resources Ltd. - *Polycarbonate + Polyester*

Units English

Action **Legend (Open)**

General Information

General			
Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Flame Retardant	• Impact Modifier	
Features	• Chemical Resistant • Flame Retardant • Good Weather Resistance	• Impact Modified • Low Temperature Impact Resistance • Self Extinguishing	• Ultra High Impact 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	1.25		ASTM D792
Melt Mass-Flow Rate (MFR) (265°C/2.16 kg)	5.0 to 12	g/10 min	ASTM D1238
Molding Shrinkage - Flow	6.0E-3 to 9.0E-3	in/in	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield, 0.125 in)	7300	psi	ASTM D638
Tensile Strength (Break, 0.125 in)	7000	psi	ASTM D638
Flexural Modulus (0.125 in)	290000	psi	ASTM D790
Flexural Strength (0.125 in)	11000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
-40°F, 0.125 in	7.0	ft·lb/in	
73°F, 0.125 in	13	ft·lb/in	
Gardner Impact (0.125 in)	320	in·lb	ASTM D3029
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in)	195	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	180	°F	ASTM D648
RTI Elec (0.06 in)	167	°F	UL 746B
RTI Imp (0.06 in)	167	°F	UL 746B
RTI Str (0.06 in)	167	°F	UL 746B
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.06 in)	V-0		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	220 to 230	°F
Drying Time	4.0 to 6.0	hr
Drying Time, Maximum	8.0	hr
Rear Temperature	480 to 520	°F
Middle Temperature	490 to 530	°F
Front Temperature	500 to 540	°F
Processing (Melt) Temp	475 to 525	°F
Mold Temperature	150 to 190	°F

Notes

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