

PRL PC-GP1-D-(color)-1

Polycarbonate
Polymer Resources Ltd.

Message:

PRL PC-GP1-D-(color)-1 is a Polycarbonate (PC) product. It can be processed by injection molding and is available in North America.
Characteristics include:
Flame Rated
RoHS Compliant
Good Mold Release
Mold Release Agent

General Information			
UL YellowCard	E113219-219245		
Additive	Mold Release		
Features	General Purpose		
	Good Mold Release		
	Low Flow		
RoHS Compliance	RoHS Compliant		
UL File Number	E113219		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	5.0 to 10	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.18 mm)	0.50 to 0.70	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
M-Scale	70		
R-Scale	118		
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Yield, 3.18 mm	62.1	MPa	
Break, 3.18 mm	72.4	MPa	
Tensile Elongation			ASTM D638
Yield, 3.18 mm	7.0	%	
Break, 3.18 mm	130	%	
Flexural Modulus (3.18 mm)	2310	MPa	ASTM D790
Flexural Strength (3.18 mm)	96.5	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	910	J/m	ASTM D256
Gardner Impact (3.18 mm)	> 36.2	J	ASTM D3029

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 3.18 mm	138	°C	
1.8 MPa, Unannealed, 3.18 mm	132	°C	
Vicat Softening Temperature	154	°C	ASTM D1525 ¹
RTI Elec			UL 746
0.749 mm	80.0	°C	
1.50 mm	125	°C	
3.00 mm	125	°C	
RTI Imp			UL 746
0.749 mm	80.0	°C	
1.50 mm	115	°C	
3.00 mm	115	°C	
RTI Str			UL 746
0.749 mm	80.0	°C	
1.50 mm	125	°C	
3.00 mm	125	°C	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+15	ohms · cm	ASTM D257
Dielectric Strength (0.749 mm)	28	kV/mm	ASTM D149
Arc Resistance (0.749 mm)	PLC 5		ASTM D495
Comparative Tracking Index (CTI) (0.749 mm)	PLC 2		UL 746
High Amp Arc Ignition (HAI)			UL 746
1.50 mm	PLC 0		
3.00 mm	PLC 1		
High Voltage Arc Tracking Rate (HVTR) (0.749 mm)	PLC 2		UL 746
Hot-wire Ignition (HWI)			UL 746
1.50 mm	PLC 2		
3.00 mm	PLC 1		
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.50 mm	V-2		
3.00 mm	V-2		
Injection	Nominal Value	Unit	
Drying Temperature	118 to 124	°C	
Drying Time	3.0 to 4.0	hr	
Drying Time, Maximum	8.0	hr	
Rear Temperature	288 to 310	°C	
Middle Temperature	299 to 321	°C	
Front Temperature	310 to 332	°C	
Processing (Melt) Temp	316 to 343	°C	

Mold Temperature	82.2 to 116	°C
NOTE		
1.	Rate B (120°C/h), Loading 2 (50 N)	

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