PRL PC-FD1-(color)-1

Polycarbonate

Polymer Resources Ltd.

Message:

PRL PC-FD1-(color)-1 is a Polycarbonate (PC) product. It can be processed by injection molding and is available in North America. Typical application: Food Contact Applications.
Characteristics include:
RoHS Compliant
Food Contact Acceptable
Good Mold Release
Heat Resistant
Impact Resistant

General Information			
Additive	Mold Release		
Features	Food Contact Acceptable General Purpose Good Mold Release Low Flow Medium Heat Resistance Ultra High Impact Resistance		
Agency Ratings	FDA Food Contact, Unspecified Rating		
RoHS Compliance	RoHS Compliant		
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			ASTM D955
Flow : 3.18 mm	0.50 to 0.70	%	
Across Flow : 3.18 mm	0.50 to 0.70	%	
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]
Optical	**Nominal Value**	**Unit**	**Test Method**
Transmittance (2540 µm)	88.0	%	ASTM D1003
Haze (2540 µm)	1.0	%	ASTM D1003
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)		

Recommended distributors for this material

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