PRL PC-FR1-D

Polycarbonate

Polymer Resources Ltd.

Message:

PRL PC-FR1-D is a Polycarbonate (PC) product. It can be processed by injection molding and is available in North America. Typical application: Outdoor Applications.
Characteristics include:
Flame Rated
RoHS Compliant
Flame Retardant
Heat Resistant
High Viscosity

General Information			
UL YellowCard	E113219-219241		
Additive	Flame Retardant		
Features	Flame Retardant High Impact Resistance High Viscosity Low Flow Medium Heat Resistance Self Extinguishing		
RoHS Compliance	RoHS Compliant		
UL File Number	E113219		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.21	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	%	
Outdoor Suitability	f1		UL 746C
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	55.2	MPa	

Tensile Elongation			ASTM D638
Yield, 3.18 mm	7.0	%	
Break, 3.18 mm	90	%	
Flexural Modulus (3.18 mm)	2210	MPa	ASTM D790
Flexural Strength (3.18 mm)	89.6	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C, 3.18 mm)	640	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	135	°C	
1.8 MPa, Unannealed, 3.18 mm	129	°C	
Vicat Softening Temperature	149	°C	ASTM D1525 [1]
RTI Elec			UL 746
1.50 mm	125	°C	
3.00 mm	125	°C	
RTI Imp			UL 746
1.50 mm	110	°C	
3.00 mm	110	°C	
RTI Str			UL 746
1.50 mm	125	°C	
3.00 mm	125	°C	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+17	ohms·cm	ASTM D257
Dielectric Strength (1.50 mm)	23	kV/mm	ASTM D149
Arc Resistance (1.50 mm)	PLC 5		ASTM D495
Comparative Tracking Index (CTI) (1.50 mm)	PLC 2		UL 746
High Amp Arc Ignition (HAI)			UL 746
1.50 mm	PLC 0		
3.00 mm	PLC 0		
High Voltage Arc Tracking Rate (HVTR) (1.50 mm)	PLC 3		UL 746
Hot-wire Ignition (HWI)			UL 746
1.50 mm	PLC 2		
3.00 mm	PLC 2		
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.50 mm	V-0		

	V-0
3.00 mm	5VA

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

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

WECHAT