

PRL PC-FR3A-D

Polycarbonate
Polymer Resources Ltd.

Message:

PRL PC-FR3A-D is a Polycarbonate (PC) product. It can be processed by injection molding and is available in North America.

Characteristics include:

- Flame Rated
- RoHS Compliant
- Flame Retardant
- High Flow

General Information			
UL YellowCard	E113219-219240		
Features	Flame Retardant		
	High Flow		
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/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	14 to 20	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	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	146	°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+15	ohms·cm	ASTM D257
Dielectric Strength (1.50 mm)	25	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 3		
3.00 mm	PLC 2		
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 1		
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.50 mm, ALL	V-2		
3.00 mm, ALL	V-0		
Optical	Nominal Value	Unit	Test Method
Transmittance (2540 µm)	85.0	%	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	266 to 288	°C	
Middle Temperature	277 to 299	°C	
Front Temperature	288 to 310	°C	
Processing (Melt) Temp	282 to 310	°C	
Mold Temperature	71.1 to 93.3	°C	
NOTE			

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