

## Polymer Resources PC-FR-IM1 Polycarbonate, Preliminary Data Sheet, Low Temperature Impact and Flame Retardant

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, Unreinforced, Flame Retardant

### Material Notes:

Process: Molding or Extrusion  
Notes: All physical, mechanical and thermal testing conducted on 1/8-inch thick, un-pigmented, test samples. Information provided by Polymer Resources Corporation.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Polymer-Resources-PC-FR-IM1-Polycarbonate-Preliminary-Data-Sheet-Low-Temperature-Impact-and-Flame-Retardant.php](http://www.lookpolymers.com/polymer_Polymer-Resources-PC-FR-IM1-Polycarbonate-Preliminary-Data-Sheet-Low-Temperature-Impact-and-Flame-Retardant.php)

Physical Properties	Metric	English	Comments
Density	1.19 g/cc	0.0430 lb/in <sup>3</sup>	ASTM D792
Linear Mold Shrinkage	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	ASTM D955
Melt Flow	5.0 - 10 g/10 min	5.0 - 10 g/10 min	ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	53.8 MPa	7800 psi	ASTM D638
Tensile Strength, Yield	53.8 MPa	7800 psi	ASTM D638
Flexural Strength	75.8 MPa	11000 psi	ASTM D790
Flexural Modulus	2.00 GPa	290 ksi	ASTM D790
Izod Impact, Notched	7.47 J/cm	14.0 ft-lb/in	ASTM D256
	6.41 J/cm	12.0 ft-lb/in	ASTM D256
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Gardner Impact	>= 36.2 J	>= 26.7 ft-lb	ASTM D3029

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	129 °C	265 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	124 °C	255 °F	ASTM D648
Flammability, UL94	V-1	V-1	1/8 in

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	271 - 293 °C	520 - 560 °F	

Middle Barrel Temperature Processing Properties	282 - 304 °C Metric	540 - 580 °F English	Comments
Front Barrel Temperature	293 - 316 °C	560 - 600 °F	
Melt Temperature	282 - 316 °C	540 - 600 °F	
Mold Temperature	71.1 - 93.3 °C	160 - 200 °F	
Drying Temperature	118 - 124 °C	245 - 255 °F	
Dry Time	3 - 4 hour	3 - 4 hour	

## Contact Songhan Plastic Technology Co.,Ltd.

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