

Polymer Resources PC-FD1 Polycarbonate, FDA-compliant Feedstocks, Low Flow

Categories: [Polymer](#); [Thermoplastic](#); [Polycarbonate](#); [Polycarbonate, Molded](#)

Material Notes: **Process:** Injection Molding

Notes: All physical, mechanical and thermal testing conducted on 1/8-inch thick, un-pigmented, test samples.

Information provided by Polymer Resources Corporation.

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in ³	ASTM D792
Linear Mold Shrinkage	0.00500 - 0.00700 cm/cm	0.00500 - 0.00700 in/in	ASTM D955
Melt Flow	5.00 - 10.0 g/10 min	5.00 - 10.0 g/10 min	ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength @ Break	72.4 MPa	10500 psi	ASTM D638
Tensile Strength @ Yield	62.1 MPa	9000 psi	ASTM D638
Flexural Modulus	2.31 GPa	335 ksi	ASTM D790
Flexural Strength	96.5 MPa	14000 psi	ASTM D790
Gardner Impact	>= 36.2 J	>= 26.7 ft-lb	ASTM D3029
Izod Impact, Notched	9.08 J/cm	17.0 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	138 °C	280 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	132 °C	270 °F	ASTM D648
Flammability, UL94	V-2	V-2	1/16 in
	V-2	V-2	1/8 in

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	288 - 310 °C	550 - 590 °F	
Middle Barrel Temperature	299 - 321 °C	570 - 610 °F	
Front Barrel Temperature	310 - 332 °C	590 - 630 °F	
Melt Temperature	316 - 343 °C	600 - 650 °F	
Mold Temperature	82.2 - 116 °C	180 - 240 °F	
Drying Temperature	118 - 124 °C	245 - 255 °F	
Dry Time	3 - 4 hour	3 - 4 hour	

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's disclaimer and terms of use regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.