

RTP Company RTP 400 HI Polystyrene (PS), High Impact

Categories: [Polymer](#); [Thermoplastic](#); [Polystyrene \(PS\)](#); [Polystyrene, Impact Modified](#)

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Physical Properties	Metric	English	Comments
Specific Gravity	1.04 g/cc	1.04 g/cc	ASTM D 792
Linear Mold Shrinkage	0.0030 - 0.0070 cm/cm @Thickness 3.20 mm	0.0030 - 0.0070 in/in @Thickness 0.126 in	ASTM D 955
Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	24.1 MPa	3500 psi	ASTM D 638
Elongation at Break	>= 10 %	>= 10 %	ASTM D 638
Tensile Modulus	2.07 GPa	300 ksi	ASTM D 638
Flexural Strength	48.3 MPa	7000 psi	ASTM D 790
Flexural Modulus	2.28 GPa	330 ksi	ASTM D 790
Izod Impact, Notched	1.07 J/cm @Thickness 3.20 mm	2.00 ft-lb/in @Thickness 0.126 in	ASTM D 256
Izod Impact, Unnotched	10.7 J/cm @Thickness 3.20 mm	20.0 ft-lb/in @Thickness 0.126 in	ASTM D 4812
Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	85.0 °C	185 °F	ASTM D 648
Deflection Temperature at 1.8 MPa (264 psi)	76.7 °C	170 °F	ASTM D 648
Flammability, UL94	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	
Processing Properties	Metric	English	Comments
Melt Temperature	210 - 249 °C	410 - 480 °F	
Mold Temperature	37.8 - 65.6 °C	100 - 150 °F	
Drying Temperature	82.2 °C @Time 7200 sec	180 °F @Time 2.00 hour	
Injection Pressure	68.9 - 103 MPa	10000 - 15000 psi	

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 [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.