

# Polypropylene

Polypropylene is a flexible, rugged thermoplastic used for a wide variety of applications, from plastic currency to food containers and industrial moulds. It provides good fatigue properties and exceptional resistance to chemicals, including acids and solvents.

It has a high melting point compared to many other plastics, and can be used both as a structural plastic and as a fibre.

<i>Key Properties</i>		<i>Units</i>	<i>Test Method</i>
<b>General</b>			
Density	0.92 (0.033)	g/cm <sup>3</sup> (lb/in <sup>3</sup> )	ISO 1183
Density Relative to Water (=1)	0.92	-	ISO 1183
Water absorption (24 hrs)	0.1	%	ISO 62
<b>Thermal</b>			
Continuous Service Temperature (5000 hours)	100 (212)	°C (°F)	-
Vicat Softening Temperature	90	°C (°F)	DIN 53460
Thermal Conductivity	0.22	°C (°F)	DIN 52612
Linear Thermal Expansion	1.6	x10 <sup>-4</sup> / °C	DIN 53752
Melting Point	160 (320)	°C (°F)	-
Flammability Rating	HB	-	UL 94
<b>Mechanical</b>			
Impact Strength, Notched Izod @ 23°C	13	ft-lbs/in <sup>2</sup>	-
Modulus of Elasticity	1350	MPa	DIN 53457
Tensile Strength at Break	34	MPa	DIN 53505
Elongation at Break	14	%	DIN 53505
Shore Hardness (D)	71	N/mm <sup>2</sup>	DIN 53505
<b>Electrical</b>			
Dielectric Strength	55	kV/mm	DIN 53481
Surface Resistivity	10 <sup>13</sup>	-	DIN 53482

## Notes

Figures shown are for panel thickness 3mm

**DISCLAIMER:** The purpose of this data sheet is to enable a consistent comparison with other products to help users to make an informed choice. The information provided in this product data sheet is for comparison and reference purposes only and is based on generic information gathered from a number of sources. In some cases the data provided is an average value only and represents our best attempt to describe the material's properties under typical factory conditions. We make no representations or warranties as to the completeness or accuracy of any of the data contained in this data sheet and users should use them as a general decision-making guide only. Branded data sheets are available on request. The information contained in this data sheet is subject to copyright. This data sheet cannot be reproduced for commercial purposes, apart from assisting users with making a purchasing decision, without the express permission of Plastic Wholesale.