

## Overview of materials for Polypropylene with 60% Glass Fiber Filler

Category : Polymer , Thermoplastic , Polypropylene (PP) , Polypropylene with 60% Glass Fiber Filler

### Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Polypropylene with 60% Glass Fiber Filler".

Specific grades with glass content between 55% and 64% are included. Each property range of values reported is minimum and maximum values of appropriate MatWeb entries. The comments report the average value, and number of data points used to calculate the average.

The values are not necessarily typical of any specific grade, especially less common values and those that can be most affected by additives or processing methods.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Overview-of-materials-for-Polypropylene-with-60-Glass-Fiber-Filler.php](http://www.lookpolymers.com/polymer_Overview-of-materials-for-Polypropylene-with-60-Glass-Fiber-Filler.php)

Physical Properties	Metric	English	Comments
Density	1.15 - 1.50 g/cc	0.0415 - 0.0542 lb/in <sup>3</sup>	Average value: 1.43 g/cc Grade Count:19
Filler Content	60.0 %	60.0 %	Average value: 60.0 % Grade Count:3
Linear Mold Shrinkage	0.00100 - 0.00600 cm/cm	0.00100 - 0.00600 in/in	Average value: 0.00376 cm/cm Grade Count:4

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	117 - 280 MPa	17000 - 40600 psi	Average value: 151 MPa Grade Count:11
	80.0 - 90.0 MPa @Temperature 80.0 - 80.0 °C	11600 - 13100 psi @Temperature 176 - 176 °F	Average value: 85.3 MPa Grade Count:4
Tensile Strength, Yield	16.5 - 150 MPa	2400 - 21800 psi	Average value: 111 MPa Grade Count:7
Elongation at Break	1.00 - 3.00 %	1.00 - 3.00 %	Average value: 1.81 % Grade Count:17
	2.00 - 2.10 % @Temperature 80.0 - 80.0 °C	2.00 - 2.10 % @Temperature 176 - 176 °F	Average value: 2.03 % Grade Count:4
Modulus of Elasticity	6.30 - 25.1 GPa	914 - 3640 ksi	Average value: 14.1 GPa Grade Count:16
	9.10 - 9.50 GPa @Temperature 80.0 - 80.0 °C	1320 - 1380 ksi @Temperature 176 - 176 °F	Average value: 9.40 GPa Grade Count:4
Flexural Yield Strength	28.3 - 420 MPa	4100 - 60900 psi	Average value: 215 MPa Grade Count:18
	134 - 140 MPa	19400 - 20300 psi	Average value: 137 MPa Grade

Mechanical Properties	@Temperature 80.0 - 80.0 °C Metric	@Temperature 176 - 176 °F English	Count:4 Comments
Flexural Modulus	2.41 - 24.1 GPa	350 - 3500 ksi	Average value: 13.0 GPa Grade Count:18
	9.50 - 11.0 GPa @Temperature 80.0 - 80.0 °C	1380 - 1600 ksi @Temperature 176 - 176 °F	Average value: 10.2 GPa Grade Count:4
Izod Impact, Notched	0.320 - 3.42 J/cm	0.600 - 6.41 ft-lb/in	Average value: 2.36 J/cm Grade Count:7
Charpy Impact Unnotched	4.50 - 8.00 J/cm <sup>2</sup>	21.4 - 38.1 ft-lb/in <sup>2</sup>	Average value: 6.56 J/cm <sup>2</sup> Grade Count:8
	4.50 - 9.00 J/cm <sup>2</sup> @Temperature -30.0 - - 20.0 °C	21.4 - 42.8 ft-lb/in <sup>2</sup> @Temperature -22.0 - - 4.00 °F	Average value: 6.50 J/cm <sup>2</sup> Grade Count:7
Charpy Impact, Notched	1.10 - 4.80 J/cm <sup>2</sup>	5.24 - 22.8 ft-lb/in <sup>2</sup>	Average value: 2.98 J/cm <sup>2</sup> Grade Count:10
	0.900 - 5.00 J/cm <sup>2</sup> @Temperature -30.0 - - 20.0 °C	4.28 - 23.8 ft-lb/in <sup>2</sup> @Temperature -22.0 - - 4.00 °F	Average value: 3.24 J/cm <sup>2</sup> Grade Count:8

Thermal Properties	Metric	English	Comments
Melting Point	160 - 170 °C	320 - 338 °F	Average value: 166 °C Grade Count:9
Deflection Temperature at 1.8 MPa (264 psi)	85.0 - 175 °C	185 - 347 °F	Average value: 154 °C Grade Count:17

Processing Properties	Metric	English	Comments
Processing Temperature	30.0 - 270 °C	86.0 - 518 °F	Average value: 158 °C Grade Count:7
Die Temperature	240 - 250 °C	464 - 482 °F	Average value: 245 °C Grade Count:7
Melt Temperature	199 - 270 °C	390 - 518 °F	Average value: 239 °C Grade Count:10
Mold Temperature	37.8 - 90.0 °C	100 - 194 °F	Average value: 72.2 °C Grade Count:3
Drying Temperature	80.0 - 100 °C	176 - 212 °F	Average value: 91.7 °C Grade Count:9
Moisture Content	0.0200 - 0.200 %	0.0200 - 0.200 %	Average value: 0.174 % Grade Count:7
Injection Pressure	60.0 - 140 MPa	8700 - 20300 psi	Average value: 92.9 MPa Grade Count:9

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