

Overview of materials for Polypropylene Glass Bead Filled

Category : Polymer , Thermoplastic , Polypropylene (PP) , Polypropylene Glass Bead Filled

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Polypropylene Glass Bead Filled". 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-Glass-Bead-Filled.php

Physical Properties	Metric	English	Comments
Density	0.770 - 1.40 g/cc	0.0278 - 0.0506 lb/in ³	Average value: 1.08 g/cc Grade Count:30
Filler Content	10.0 - 40.0 %	10.0 - 40.0 %	Average value: 25.0 % Grade Count:6
Water Absorption	0.0200 - 0.0400 %	0.0200 - 0.0400 %	Average value: 0.0258 % Grade Count:12
Linear Mold Shrinkage	0.00800 - 0.0226 cm/cm	0.00800 - 0.0226 in/in	Average value: 0.0143 cm/cm Grade Count:26
Linear Mold Shrinkage, Transverse	0.00900 - 0.0210 cm/cm	0.00900 - 0.0210 in/in	Average value: 0.0153 cm/cm Grade Count:8
Melt Flow	3.00 - 25.0 g/10 min	3.00 - 25.0 g/10 min	Average value: 9.65 g/10 min Grade Count:10

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	89.0 - 100	89.0 - 100	Average value: 96.2 Grade Count:10
Tensile Strength, Ultimate	6.21 - 37.0 MPa	900 - 5370 psi	Average value: 23.9 MPa Grade Count:23
Tensile Strength, Yield	17.6 - 26.2 MPa	2550 - 3800 psi	Average value: 21.3 MPa Grade Count:9
Elongation at Break	2.00 - 100 %	2.00 - 100 %	Average value: 21.0 % Grade Count:22
Elongation at Yield	4.80 - 100 %	4.80 - 100 %	Average value: 19.4 % Grade Count:8
Modulus of Elasticity	1.32 - 3.25 GPa	191 - 471 ksi	Average value: 2.08 GPa Grade Count:23
Flexural Yield Strength	10.3 - 55.0 MPa	1500 - 7980 psi	Average value: 35.6 MPa Grade Count:26
Flexural Modulus	1.03 - 3.10 GPa	149 - 450 ksi	Average value: 1.89 GPa Grade Count:27
Compressive Yield Strength	29.0 - 34.5 MPa	4200 - 5000 psi	Average value: 32.1 MPa Grade Count:4

Mechanical Properties	Metric	English	Comments
Izod Impact, Notched	0.100 - 1.60 J/cm	0.300 - 3.00 ft-lb/in	Average value: 0.404 J/cm Grade Count:21
Izod Impact, Unnotched	1.87 - 10.7 J/cm	3.50 - 20.0 ft-lb/in	Average value: 4.43 J/cm Grade Count:13
Izod Impact, Notched (ISO)	2.70 - 6.00 kJ/m ²	1.28 - 2.86 ft-lb/in ²	Average value: 3.67 kJ/m ² Grade Count:4
	4.00 - 4.00 kJ/m ² @Temperature -30.0 - - 30.0 °C	1.90 - 1.90 ft-lb/in ² @Temperature -22.0 - - 22.0 °F	Average value: 4.00 kJ/m ² Grade Count:1
Charpy Impact Unnotched	1.50 - 4.50 J/cm ²	7.14 - 21.4 ft-lb/in ²	Average value: 3.37 J/cm ² Grade Count:7
	1.80 - 3.40 J/cm ² @Temperature -20.0 - - 20.0 °C	8.57 - 16.2 ft-lb/in ² @Temperature -4.00 - - 4.00 °F	Average value: 2.44 J/cm ² Grade Count:5
Charpy Impact, Notched	0.300 - 0.600 J/cm ²	1.43 - 2.86 ft-lb/in ²	Average value: 0.467 J/cm ² Grade Count:6
	0.200 - 0.500 J/cm ² @Temperature -20.0 - - 20.0 °C	0.952 - 2.38 ft-lb/in ² @Temperature -4.00 - - 4.00 °F	Average value: 0.340 J/cm ² Grade Count:5

Thermal Properties	Metric	English	Comments
CTE, linear	37.8 - 104 µm/m-°C	21.0 - 57.8 µin/in-°F	Average value: 62.9 µm/m-°C Grade Count:10
Melting Point	150 - 170 °C	302 - 338 °F	Average value: 164 °C Grade Count:14
Deflection Temperature at 0.46 MPa (66 psi)	88.0 - 125 °C	190 - 257 °F	Average value: 114 °C Grade Count:14
Deflection Temperature at 1.8 MPa (264 psi)	56.0 - 160 °C	133 - 320 °F	Average value: 77.4 °C Grade Count:26
Vicat Softening Point	94.0 - 156 °C	201 - 313 °F	Average value: 114 °C Grade Count:8
Flammability, UL94	HB	HB	Grade Count:15

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+12 - 1.00e+17 ohm-cm	1.00e+12 - 1.00e+17 ohm-cm	Average value: 1.47e+16 ohm-cm Grade Count:13
Dielectric Strength	19.7 kV/mm	500 kV/in	Average value: 19.7 kV/mm Grade Count:6

Processing Properties	Metric	English	Comments
Processing Temperature	193 - 240 °C	380 - 464 °F	Average value: 211 °C Grade Count:7

Processing Properties	Metric	English	Comments
Mold Temperature	20.0 - 80.0 °C	68.0 - 176 °F	Average value: 50.1 °C Grade Count:22
Drying Temperature	70.0 - 100 °C	158 - 212 °F	Average value: 79.9 °C Grade Count:11
Injection Pressure	60.0 - 120 MPa	8700 - 17400 psi	Average value: 87.9 MPa Grade Count:18

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China