

Overview of materials for Polypropylene, Carbon Fiber Filled

Category : Polymer , Thermoplastic , Polypropylene (PP) , Polypropylene, Carbon Fiber Filled

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Polypropylene, Carbon Fiber 10%". 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-Carbon-Fiber-Filled.php

Physical Properties	Metric	English	Comments
Density	0.872 - 1.23 g/cc	0.0315 - 0.0444 lb/in ³	Average value: 1.02 g/cc Grade Count:19
Filler Content	1.00 - 50.0 %	1.00 - 50.0 %	Average value: 19.7 % Grade Count:14
Water Absorption	0.0100 %	0.0100 %	Average value: 0.0100 % Grade Count:7
Linear Mold Shrinkage	0.000500 - 0.0100 cm/cm	0.000500 - 0.0100 in/in	Average value: 0.00311 cm/cm Grade Count:14
Melt Flow	1.10 - 9.80 g/10 min	1.10 - 9.80 g/10 min	Average value: 4.93 g/10 min Grade Count:4

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	19.3 - 117 MPa	2800 - 17000 psi	Average value: 45.5 MPa Grade Count:20
Elongation at Break	0.400 - 436 %	0.400 - 436 %	Average value: 34.4 % Grade Count:22
Modulus of Elasticity	1.03 - 27.6 GPa	150 - 4000 ksi	Average value: 9.05 GPa Grade Count:20
Flexural Yield Strength	31.0 - 186 MPa	4500 - 27000 psi	Average value: 75.4 MPa Grade Count:18
Flexural Modulus	2.76 - 19.3 GPa	400 - 2800 ksi	Average value: 8.51 GPa Grade Count:18
Izod Impact, Notched	0.427 - 3.20 J/cm	0.800 - 6.00 ft-lb/in	Average value: 1.14 J/cm Grade Count:16
Izod Impact, Unnotched	1.07 - 11.2 J/cm	2.00 - 21.0 ft-lb/in	Average value: 3.74 J/cm Grade Count:17
Charpy Impact, Notched	0.240 - 0.320 J/cm ²	1.14 - 1.52 ft-lb/in ²	Average value: 0.290 J/cm ² Grade Count:4

Thermal Properties	Metric	English	Comments
Melting Point	165 °C	329 °F	Average value: 165 °C Grade Count:5

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	132 - 166 °C	270 - 330 °F	Average value: 143 °C Grade Count:5
Deflection Temperature at 1.8 MPa (264 psi)	104 - 149 °C	220 - 300 °F	Average value: 130 °C Grade Count:11
Flammability, UL94	HB	HB	Grade Count:7

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00 - 3.10e+9 ohm-cm	1.00 - 3.10e+9 ohm-cm	Average value: 2.40e+8 ohm-cm Grade Count:16
Surface Resistance	100 - 1.10e+11 ohm	100 - 1.10e+11 ohm	Average value: 1.56e+10 ohm Grade Count:12
Static Decay	0.100 - 2.00 sec	0.100 - 2.00 sec	Average value: 1.51 sec Grade Count:7

Processing Properties	Metric	English	Comments
Processing Temperature	188 - 227 °C	370 - 440 °F	Average value: 209 °C Grade Count:8
Nozzle Temperature	204 - 216 °C	400 - 420 °F	Average value: 210 °C Grade Count:3
Melt Temperature	191 - 250 °C	375 - 482 °F	Average value: 214 °C Grade Count:9
Mold Temperature	30.0 - 79.4 °C	86.0 - 175 °F	Average value: 53.5 °C Grade Count:17
Injection Velocity	50.8 - 76.2 mm/sec	2.00 - 3.00 in/sec	Average value: 63.5 mm/sec Grade Count:3
Drying Temperature	70.0 - 79.4 °C	158 - 175 °F	Average value: 77.9 °C Grade Count:6
Injection Pressure	68.9 - 103 MPa	10000 - 15000 psi	Average value: 86.2 MPa Grade Count:13
Cushion	0.635 cm	0.250 in	Average value: 0.635 cm Grade Count:3

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