

Overview of materials for Polysulfone, 10% Glass Fiber Reinforced

Category : Polymer , Thermoplastic , Polysulfone (PSU) , Polysulfone, 10% Glass Fiber Reinforced

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Polysulfone, 10% Glass Fiber Reinforced". Specific grades with glass content between 5% and 14% 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-Polysulfone-10-Glass-Fiber-Reinforced.php

Physical Properties	Metric	English	Comments
Density	1.27 - 1.49 g/cc	0.0459 - 0.0538 lb/in ³	Average value: 1.34 g/cc Grade Count:14
Filler Content	5.00 - 10.0 %	5.00 - 10.0 %	Average value: 9.38 % Grade Count:8
Water Absorption	0.210 - 0.230 %	0.210 - 0.230 %	Average value: 0.223 % Grade Count:3
Linear Mold Shrinkage	0.00200 - 0.00700 cm/cm	0.00200 - 0.00700 in/in	Average value: 0.00429 cm/cm Grade Count:14
Melt Flow	6.50 g/10 min	6.50 g/10 min	Average value: 6.50 g/10 min Grade Count:3

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	122 - 123	122 - 123	Average value: 122 Grade Count:7
Tensile Strength, Ultimate	68.9 - 108 MPa	10000 - 15700 psi	Average value: 82.2 MPa Grade Count:13
Elongation at Break	2.00 - 8.00 %	2.00 - 8.00 %	Average value: 4.50 % Grade Count:14
Modulus of Elasticity	3.03 - 8.69 GPa	440 - 1260 ksi	Average value: 4.49 GPa Grade Count:13
Flexural Yield Strength	110 - 154 MPa	16000 - 22300 psi	Average value: 129 MPa Grade Count:14
Flexural Modulus	3.17 - 7.58 GPa	460 - 1100 ksi	Average value: 4.24 GPa Grade Count:14
Izod Impact, Notched	0.267 - 0.801 J/cm	0.500 - 1.50 ft-lb/in	Average value: 0.617 J/cm Grade Count:14
Izod Impact, Unnotched	3.74 - 13.3 J/cm	7.00 - 25.0 ft-lb/in	Average value: 6.86 J/cm Grade Count:10
Tensile Impact Strength	101 - 113 kJ/m ²	48.1 - 53.8 ft-lb/in ²	Average value: 108 kJ/m ² Grade Count:3

Thermal Properties	Metric	English	Comments
CTE, linear	30.6 - 37.8 $\mu\text{m}/\text{m}\cdot\text{°C}$	17.0 - 21.0 $\mu\text{in}/\text{in}\cdot\text{°F}$	Average value: 35.4 $\mu\text{m}/\text{m}\cdot\text{°C}$ Grade Count:3
Deflection Temperature at 0.46 MPa (66 psi)	182 °C	360 °F	Average value: 182 °C Grade Count:7
Deflection Temperature at 1.8 MPa (264 psi)	174 - 183 °C	345 - 362 °F	Average value: 178 °C Grade Count:13
Flammability, UL94	HB - V-0	HB - V-0	Average value: 3.50 Grade Count:10

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1000 - 3.00e+16 ohm-cm	1000 - 3.00e+16 ohm-cm	Average value: 7.45e+15 ohm-cm Grade Count:11
Dielectric Constant	3.15 - 3.50	3.15 - 3.50	Average value: 3.37 Grade Count:6
Dielectric Strength	16.9 - 19.0 kV/mm	430 - 483 kV/in	Average value: 17.8 kV/mm Grade Count:7
Dissipation Factor	0.000700 - 0.00800	0.000700 - 0.00800	Average value: 0.00460 Grade Count:6
Arc Resistance	100 sec	100 sec	Average value: 100 sec Grade Count:3

Processing Properties	Metric	English	Comments
Melt Temperature	332 - 399 °C	630 - 750 °F	Average value: 356 °C Grade Count:13
Mold Temperature	93.3 - 163 °C	200 - 325 °F	Average value: 126 °C Grade Count:13
Drying Temperature	135 - 191 °C	275 - 376 °F	Average value: 141 °C Grade Count:13
Moisture Content	0.150 %	0.150 %	Average value: 0.150 % Grade Count:10
Dew Point	-31.7 °C	-25.0 °F	Average value: -31.7 °C Grade Count:10
Injection Pressure	68.9 - 124 MPa	10000 - 18000 psi	Average value: 96.5 MPa Grade Count:10

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