

Overview of materials for Polyphenylene Ether, 10% Glass Filled

Category : Polymer , Thermoplastic , Polyphenylene Ether/PPO , Polyphenylene Ether, 10% Glass Filled

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Polyphenylene Ether, 10% Glass Filled".

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-Polyphenylene-Ether-10-Glass-Filled.php

Physical Properties	Metric	English	Comments
Density	1.10 - 1.47 g/cc	0.0397 - 0.0531 lb/in ³	Average value: 1.17 g/cc Grade Count:22
Filler Content	10.0 %	10.0 %	Average value: 10.0 % Grade Count:3
Water Absorption	0.0500 - 0.500 %	0.0500 - 0.500 %	Average value: 0.153 % Grade Count:10
Linear Mold Shrinkage	0.00100 - 0.0100 cm/cm	0.00100 - 0.0100 in/in	Average value: 0.00443 cm/cm Grade Count:20
Linear Mold Shrinkage, Transverse	0.00350 - 0.00800 cm/cm	0.00350 - 0.00800 in/in	Average value: 0.00535 cm/cm Grade Count:5
Melt Flow	1.00 - 37.0 g/10 min	1.00 - 37.0 g/10 min	Average value: 14.0 g/10 min Grade Count:9

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	41.4 - 95.0 MPa	6000 - 13800 psi	Average value: 75.7 MPa Grade Count:19
	15.0 - 60.0 MPa	2180 - 8700 psi	Average value: 36.7 MPa Grade Count:1
	@Temperature 60.0 - 120 °C	@Temperature 140 - 248 °F	
Tensile Strength, Yield	63.8 - 167 MPa	9250 - 24200 psi	Average value: 89.5 MPa Grade Count:7
Elongation at Break	1.00 - 12.0 %	1.00 - 12.0 %	Average value: 5.42 % Grade Count:18
	3.50 - 4.50 %	3.50 - 4.50 %	Average value: 3.93 % Grade Count:1
	@Temperature 60.0 - 120 °C	@Temperature 140 - 248 °F	
Elongation at Yield	2.00 - 2.00 %	2.00 - 2.00 %	Average value: 2.00 % Grade Count:1
	@Temperature 90.0 - 120 °C	@Temperature 194 - 248 °F	

Mechanical Properties	Metric	English	Comments
Modulus of Elasticity	1.93 - 8.40 GPa	280 - 1220 ksi	Average value: 4.78 GPa Grade Count:10
	2.40 - 3.40 GPa	348 - 493 ksi	Average value: 2.87 GPa Grade Count:1
	@Temperature 60.0 - 120 °C	@Temperature 140 - 248 °F	
Flexural Yield Strength	75.8 - 235 MPa	11000 - 34100 psi	Average value: 124 MPa Grade Count:16
Flexural Modulus	0.981 - 9.51 GPa	142 - 1380 ksi	Average value: 3.93 GPa Grade Count:18
Izod Impact, Notched	0.588 - 1.60 J/cm	1.10 - 3.00 ft-lb/in	Average value: 0.956 J/cm Grade Count:16
	0.5339 - 1.0678 J/cm	1.000 - 2.0004 ft-lb/in	Average value: 0.774 J/cm Grade Count:4
	@Temperature -40.0 - - 30.0 °C	@Temperature -40.0 - - 22.0 °F	
Izod Impact, Unnotched	5.34 - 16.0 J/cm	10.0 - 30.0 ft-lb/in	Average value: 8.90 J/cm Grade Count:3
Charpy Impact Unnotched	1.00 - 5.00 J/cm ²	4.76 - 23.8 ft-lb/in ²	Average value: 2.69 J/cm ² Grade Count:7
Charpy Impact, Notched	0.350 - 1.40 J/cm ²	1.67 - 6.66 ft-lb/in ²	Average value: 0.836 J/cm ² Grade Count:5

Thermal Properties	Metric	English	Comments
CTE, linear	50.0 µm/m-°C	27.8 µin/in-°F	Average value: 50.0 µm/m-°C Grade Count:3
Maximum Service Temperature, Air	110 - 130 °C	230 - 266 °F	Average value: 115 °C Grade Count:3
Deflection Temperature at 0.46 MPa (66 psi)	127 - 250 °C	260 - 482 °F	Average value: 167 °C Grade Count:12
Deflection Temperature at 1.8 MPa (264 psi)	120 - 210 °C	248 - 410 °F	Average value: 149 °C Grade Count:17
Vicat Softening Point	130 - 239 °C	266 - 462 °F	Average value: 156 °C Grade Count:9
Flammability, UL94	HB - V-0	HB - V-0	Grade Count:11

Electrical Properties	Metric	English	Comments
Electrical Resistivity	52.0 - 1.00e+16 ohm-cm	52.0 - 1.00e+16 ohm-cm	Average value: 6.50e+15 ohm-cm Grade Count:8
Surface Resistance	39.0 - 4.00e+14 ohm	39.0 - 4.00e+14 ohm	Average value: 8.35e+13 ohm Grade Count:6
Comparative Tracking Index	175 - 250 V	175 - 250 V	Average value: 213 V Grade Count:4

Processing Properties	Metric	English	Comments
Processing Temperature	232 - 282 °C	450 - 540 °F	Average value: 272 °C Grade Count:3
Nozzle Temperature	280 - 300 °C	536 - 572 °F	Average value: 290 °C Grade Count:4
Melt Temperature	249 - 316 °C	480 - 600 °F	Average value: 287 °C Grade Count:16
Mold Temperature	65.6 - 120 °C	150 - 248 °F	Average value: 89.3 °C Grade Count:17
Drying Temperature	80.0 - 110 °C	176 - 230 °F	Average value: 101 °C Grade Count:14
Injection Pressure	68.9 - 103 MPa	10000 - 15000 psi	Average value: 86.2 MPa 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