

Overview of materials for Polybutylene Terephthalate (PBT), Glass Fiber + PTFE Filled

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , Polybutylene Terephthalate (PBT), Glass Fiber + PTFE Filled

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Polybutylene Terephthalate (PBT), Glass Fiber + PTFE 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-Polybutylene-Terephthalate-PBT-Glass-Fiber-PTFE-Filled.php

Physical Properties	Metric	English	Comments
Density	1.46 - 1.76 g/cc	0.0527 - 0.0636 lb/in ³	Average value: 1.62 g/cc Grade Count:23
Filler Content	10.0 - 30.0 %	10.0 - 30.0 %	Average value: 17.5 % Grade Count:4
Water Absorption	0.0700 - 1.16 %	0.0700 - 1.16 %	Average value: 0.200 % Grade Count:10
Linear Mold Shrinkage	0.00200 - 0.0120 cm/cm	0.00200 - 0.0120 in/in	Average value: 0.00509 cm/cm Grade Count:21
Linear Mold Shrinkage, Transverse	0.0100 - 0.0140 cm/cm	0.0100 - 0.0140 in/in	Average value: 0.0111 cm/cm Grade Count:5

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	57.0 - 145 MPa	8270 - 21000 psi	Average value: 104 MPa Grade Count:24
Tensile Strength, Yield	110 - 117 MPa	15900 - 17000 psi	Average value: 114 MPa Grade Count:4
Elongation at Break	2.00 - 6.00 %	2.00 - 6.00 %	Average value: 3.15 % Grade Count:14
Elongation at Yield	1.70 - 3.50 %	1.70 - 3.50 %	Average value: 2.75 % Grade Count:10
Modulus of Elasticity	4.10 - 13.1 GPa	595 - 1900 ksi	Average value: 8.77 GPa Grade Count:19
Flexural Yield Strength	83.0 - 207 MPa	12000 - 30000 psi	Average value: 158 MPa Grade Count:21
Flexural Modulus	3.40 - 11.7 GPa	493 - 1700 ksi	Average value: 7.81 GPa Grade Count:22
Izod Impact, Notched	0.530 - 1.12 J/cm	0.993 - 2.10 ft-lb/in	Average value: 0.793 J/cm Grade Count:14
Izod Impact, Unnotched	3.74 - 8.54 J/cm	7.00 - 16.0 ft-lb/in	Average value: 6.53 J/cm Grade Count:10

Mechanical Properties	Metric	English	Comments
Izod Impact, Notched (ISO)	8.00 - 9.20 kJ/m ²	2.10 - 4.38 ft-lb/in ²	Average value: 8.40 kJ/m ² Grade Count:4
Izod Impact, Unnotched (ISO)	30.0 - 43.7 kJ/m ²	14.3 - 20.8 ft-lb/in ²	Average value: 39.7 kJ/m ² Grade Count:4
Charpy Impact Unnotched	2.80 - 5.00 J/cm ²	13.3 - 23.8 ft-lb/in ²	Average value: 4.14 J/cm ² Grade Count:9
	5.70 - 5.70 J/cm ² @Temperature -30.0 - -30.0 °C	27.1 - 27.1 ft-lb/in ² @Temperature -22.0 - -22.0 °F	Average value: 5.70 J/cm ² Grade Count:3
Charpy Impact, Notched	0.700 - 1.50 J/cm ²	3.33 - 7.14 ft-lb/in ²	Average value: 1.20 J/cm ² Grade Count:5
	1.50 - 1.50 J/cm ² @Temperature -30.0 - -30.0 °C	7.14 - 7.14 ft-lb/in ² @Temperature -22.0 - -22.0 °F	Average value: 1.50 J/cm ² Grade Count:3
Falling Dart Impact	8.70 - 13.7 J	6.42 - 10.1 ft-lb	Average value: 12.0 J Grade Count:3
Coefficient of Friction	0.110 - 0.570	0.110 - 0.570	Average value: 0.235 Grade Count:12
Coefficient of Friction, Static	0.110 - 0.410	0.110 - 0.410	Average value: 0.199 Grade Count:12
K (wear) Factor	14.0 - 242 x 10 ⁻⁸ mm ³ /N-M	6.95 - 120 x 10 ⁻¹⁰ in ³ -min/ft-lb-hr	Average value: 78.5 x 10 ⁻⁸ mm ³ /N-M Grade Count:6

Thermal Properties	Metric	English	Comments
CTE, linear	23.0 - 67.0 μm/m-°C	12.8 - 37.2 μin/in-°F	Average value: 33.6 μm/m-°C Grade Count:7
CTE, linear, Transverse to Flow	67.0 - 136 μm/m-°C	37.2 - 75.6 μin/in-°F	Average value: 90.0 μm/m-°C Grade Count:3
Thermal Conductivity	0.400 W/m-K	2.78 BTU-in/hr-ft ² -°F	Average value: 0.400 W/m-K Grade Count:3
Maximum Service Temperature, Air	130 - 180 °C	266 - 356 °F	Average value: 155 °C Grade Count:7
Deflection Temperature at 0.46 MPa (66 psi)	182 - 224 °C	360 - 435 °F	Average value: 211 °C Grade Count:7
Deflection Temperature at 1.8 MPa (264 psi)	79.4 - 218 °C	175 - 424 °F	Average value: 192 °C Grade Count:18
Vicat Softening Point	205 - 215 °C	401 - 419 °F	Average value: 211 °C Grade Count:7
Flammability, UL94	HB - V-0	HB - V-0	Grade Count:9

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+14 - 1.00e+16 ohm-cm	1.00e+14 - 1.00e+16 ohm-cm	Average value: 8.35e+15 ohm-cm Grade Count:3

Electrical Properties	Metric	English	Comments
	1.00e+12 ohm	1.00e+12 ohm	Average value: 1.00e+12 ohm Grade Count:9
Processing Properties	Metric	English	Comments
Processing Temperature	232 - 257 °C	450 - 495 °F	Average value: 249 °C Grade Count:9
Nozzle Temperature	250 - 265 °C	482 - 509 °F	Average value: 258 °C Grade Count:7
Melt Temperature	232 - 280 °C	450 - 536 °F	Average value: 257 °C Grade Count:20
Mold Temperature	60.0 - 120 °C	140 - 248 °F	Average value: 87.7 °C Grade Count:22
Drying Temperature	80.0 - 130 °C	176 - 266 °F	Average value: 109 °C Grade Count:18
Moisture Content	0.0300 - 0.150 %	0.0300 - 0.150 %	Average value: 0.0814 % Grade Count:7
Dew Point	-28.9 °C	-20.0 °F	Average value: -28.9 °C Grade Count:4
Injection Pressure	68.9 - 103 MPa	10000 - 15000 psi	Average value: 86.2 MPa Grade Count:6

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