

## Overview of materials for Polybutylene Terephthalate (PBT), 30% Glass Fiber Filled

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , Polybutylene Terephthalate (PBT), 30% Glass Fiber Filled

### Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Polybutylene Terephthalate (PBT), 30% Glass Fiber Filled". Specific grades with glass content between 25% and 34% 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-Polybutylene-Terephthalate-PBT-30-Glass-Fiber-Filled.php](http://www.lookpolymers.com/polymer_Overview-of-materials-for-Polybutylene-Terephthalate-PBT-30-Glass-Fiber-Filled.php)

Physical Properties	Metric	English	Comments
Density	1.14 - 1.97 g/cc	0.0412 - 0.0712 lb/in <sup>3</sup>	Average value: 1.56 g/cc Grade Count:324
	1.29 - 1.49 g/cc @Temperature 250 - 250 °C	0.0466 - 0.0538 lb/in <sup>3</sup> @Temperature 482 - 482 °F	Average value: 1.40 g/cc Grade Count:6
Filler Content	25.0 - 30.0 %	25.0 - 30.0 %	Average value: 29.8 % Grade Count:51
Water Absorption	0.0200 - 0.500 %	0.0200 - 0.500 %	Average value: 0.215 % Grade Count:100
Moisture Absorption at Equilibrium	0.0300 - 0.200 %	0.0300 - 0.200 %	Average value: 0.134 % Grade Count:121
Water Absorption at Saturation	0.0600 - 0.700 %	0.0600 - 0.700 %	Average value: 0.383 % Grade Count:19
Viscosity	230000 - 230000 cP @Temperature 250 - 250 °C	230000 - 230000 cP @Temperature 482 - 482 °F	Average value: 230000 cP Grade Count:2
	230000 - 230000 cP @Shear Rate 1000 - 1000 1/s	230000 - 230000 cP @Shear Rate 1000 - 1000 1/s	Average value: 230000 cP Grade Count:2
Viscosity Test	62.0 - 111 cm <sup>3</sup> /g	62.0 - 111 cm <sup>3</sup> /g	Average value: 88.6 cm <sup>3</sup> /g Grade Count:31
Maximum Moisture Content	0.0200	0.0200	Average value: 0.0200 Grade Count:12
Linear Mold Shrinkage	0.000 - 0.0200 cm/cm	0.000 - 0.0200 in/in	Average value: 0.00468 cm/cm Grade Count:268
Linear Mold Shrinkage, Transverse	0.00100 - 0.0210 cm/cm	0.00100 - 0.0210 in/in	Average value: 0.00968 cm/cm Grade Count:124

Physical Properties	Metric	English	Comments
Spiral Flow	33.0 - 41.0 cm	13.0 - 16.1 in	Average value: 36.3 cm Grade Count:3
Ash	28.0 - 34.0 %	28.0 - 34.0 %	Average value: 30.4 % Grade Count:5

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	71.0 - 112	71.0 - 112	Average value: 89.2 Grade Count:33
Hardness, Rockwell R	90.0 - 122	90.0 - 122	Average value: 116 Grade Count:30
Hardness, Shore D	79.0 - 85.0	79.0 - 85.0	Average value: 82.0 Grade Count:7
Ball Indentation Hardness	105 - 230 MPa	15200 - 33400 psi	Average value: 185 MPa Grade Count:11
Tensile Strength, Ultimate	20.0 - 186 MPa	2900 - 27000 psi	Average value: 121 MPa Grade Count:263
	15.0 - 195 MPa @Temperature -40.0 - 150 °C	2180 - 28300 psi @Temperature -40.0 - 302 °F	Average value: 93.9 MPa Grade Count:11
	40.0 - 200 MPa @Temperature -40.0 - 140 °C	5800 - 29000 psi @Temperature -40.0 - 284 °F	Average value: 93.9 MPa Grade Count:1
	40.0 - 200 MPa @Strain 0.500 - 5.00 %	5800 - 29000 psi @Strain 0.500 - 5.00 %	Average value: 93.9 MPa Grade Count:1
Tensile Strength, Yield	82.7 - 155 MPa	12000 - 22500 psi	Average value: 119 MPa Grade Count:81
Elongation at Break	1.00 - 130 %	1.00 - 130 %	Average value: 3.59 % Grade Count:274
	1.90 - 6.30 % @Temperature 0.000 - 150 °C	1.90 - 6.30 % @Temperature 32.0 - 302 °F	Average value: 3.43 % Grade Count:9
Elongation at Yield	2.00 - 5.00 %	2.00 - 5.00 %	Average value: 2.97 % Grade Count:9
Modulus of Elasticity	0.824 - 15.0 GPa	119 - 2180 ksi	Average value: 9.44 GPa Grade Count:182
	0.216 - 11.66 GPa @Temperature -40.0 - 220 °C	31.3 - 1691 ksi @Temperature -40.0 - 428 °F	Average value: 5.78 GPa Grade Count:14
Flexural Yield Strength	80.0 - 270 MPa	11600 - 39200 psi	Average value: 186 MPa Grade Count:236
	115 - 120 MPa	16700 - 17400 psi	

Mechanical Properties	Metric @ Temperature 90.0 - 90.0 °C	English @ Temperature 194 - 194 °F	Comments Average value: 118 MPa Grade Count:2
Flexural Modulus	0.00800 - 11.0 GPa	1.16 - 1600 ksi	Average value: 8.29 GPa Grade Count:234
	4.80 - 5.50 GPa @Temperature 90.0 - 90.0 °C	696 - 798 ksi @Temperature 194 - 194 °F	Average value: 5.15 GPa Grade Count:2
Compressive Yield Strength	117 - 124 MPa	17000 - 18000 psi	Average value: 122 MPa Grade Count:6
Shear Modulus	>= 0.380 GPa @Temperature -100 - 200 °C	>= 55.1 ksi @Temperature -148 - 392 °F	Average value: 1.30 GPa Grade Count:2
Izod Impact, Notched	0.150 - 2.19 J/cm	0.281 - 4.10 ft-lb/in	Average value: 0.904 J/cm Grade Count:146
	0.96102 - 0.96102 J/cm @Temperature -28.9 - - 28.9 °C	1.8004 - 1.8004 ft-lb/in @Temperature -20.0 - - 20.0 °F	Average value: 0.961 J/cm Grade Count:1
Izod Impact, Unnotched	1.08 - 11.8 J/cm	2.02 - 22.0 ft-lb/in	Average value: 7.09 J/cm Grade Count:24
Izod Impact, Notched (ISO)	4.50 - 70.0 kJ/m <sup>2</sup>	2.14 - 33.3 ft-lb/in <sup>2</sup>	Average value: 13.0 kJ/m <sup>2</sup> Grade Count:88
	6.00 - 32.0 kJ/m <sup>2</sup> @Temperature -40.0 - 30.0 °C	2.86 - 15.2 ft-lb/in <sup>2</sup> @Temperature -40.0 - 86.0 °F	Average value: 9.70 kJ/m <sup>2</sup> Grade Count:22
Izod Impact, Unnotched (ISO)	35.0 - 70.0 kJ/m <sup>2</sup>	16.7 - 33.3 ft-lb/in <sup>2</sup>	Average value: 54.0 kJ/m <sup>2</sup> Grade Count:39
	30.0 - 60.0 kJ/m <sup>2</sup> @Temperature -40.0 - - 30.0 °C	14.3 - 28.6 ft-lb/in <sup>2</sup> @Temperature -40.0 - - 22.0 °F	Average value: 47.3 kJ/m <sup>2</sup> Grade Count:11
Charpy Impact Unnotched	0.850 - 50.0 J/cm <sup>2</sup>	4.05 - 238 ft-lb/in <sup>2</sup>	Average value: 5.67 J/cm <sup>2</sup> Grade Count:130
	1.40 - 8.00 J/cm <sup>2</sup> @Temperature -40.0 - 30.0 °C	6.66 - 38.1 ft-lb/in <sup>2</sup> @Temperature -40.0 - 86.0 °F	Average value: 5.20 J/cm <sup>2</sup> Grade Count:84
Charpy Impact, Notched	0.210 - 7.50 J/cm <sup>2</sup>	0.999 - 35.7 ft-lb/in <sup>2</sup>	Average value: 0.984 J/cm <sup>2</sup> Grade Count:155
	0.300 - 1.60 J/cm <sup>2</sup> @Temperature -40.0 - 30.0 °C	1.43 - 7.61 ft-lb/in <sup>2</sup> @Temperature -40.0 - 86.0 °F	Average value: 0.901 J/cm <sup>2</sup> Grade Count:89

Dart Drop, Total Energy Mechanical Properties	Metric	English	Average value: 5.00 J Grade Count:3 Comments
Puncture Energy	1.90 - 2.30 J	1.40 - 1.70 ft-lb	Average value: 2.22 J Grade Count:5
	1.70 - 2.50 J @Temperature -30.0 - - 30.0 °C	1.25 - 1.84 ft-lb @Temperature -22.0 - - 22.0 °F	Average value: 2.10 J Grade Count:3
Tensile Creep Modulus, 1 hour	3600 - 11000 MPa	522000 - 1.60e+6 psi	Average value: 9640 MPa Grade Count:9
Tensile Creep Modulus, 1000 hours	2500 - 10000 MPa	363000 - 1.45e+6 psi	Average value: 7610 MPa Grade Count:14

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+8 - 2.00e+17 ohm-cm	1.00e+8 - 2.00e+17 ohm-cm	Average value: 1.62e+16 ohm-cm Grade Count:173

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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