Overview of materials for PBT + PET Blend, Glass Filled

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , PBT + PET Blend, Glass Filled , Polyethylene Terephthalate (PET)

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "PBT + PET Blend, Glass 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-PBT-PET-Blend-Glass-Filled.php

Physical Properties	Metric	English	Comments
Density	1.36 - 1.76 g/cc	0.0493 - 0.0636 lb/in³	Average value: 1.56 g/cc Grade Count:77
Filler Content	15.0 - 30.0 %	15.0 - 30.0 %	Average value: 22.5 % Grade Count:4
Water Absorption	0.0300 - 0.400 %	0.0300 - 0.400 %	Average value: 0.327 % Grade Count:23
Moisture Absorption at Equilibrium	0.0300 - 0.200 %	0.0300 - 0.200 %	Average value: 0.120 % Grade Count:47
Water Absorption at Saturation	0.150 - 0.500 %	0.150 - 0.500 %	Average value: 0.242 % Grade Count:20
Viscosity	145000 - 195000 cP	145000 - 195000 cP	Average value: 164000 cP Grade Count:4
	12500 - 1.75e+6 cP @Temperature 230 - 270 °C	12500 - 1.75e+6 cP @Temperature 446 - 518 °F	Average value: 437000 cP Grade Count:2
	12500 - 1.75e+6 cP @Shear Rate 1.00 - 100000 1/s	12500 - 1.75e+6 cP @Shear Rate 1.00 - 100000 1/s	Average value: 437000 cP Grade Count:2
Viscosity Test	50.0 - 95.0 cm³/g	50.0 - 95.0 cm³/g	Average value: 80.9 cm³/g Grade Count:16
Maximum Moisture Content	0.0200	0.0200	Average value: 0.0200 Grade Count:5
Linear Mold Shrinkage	0.00100 - 0.0110 cm/cm	0.00100 - 0.0110 in/in	Average value: 0.00430 cm/cm Grade Count:51
Linear Mold Shrinkage, Transverse	0.00100 - 0.0120 cm/cm	0.00100 - 0.0120 in/in	Average value: 0.00697 cm/cm Grade Count:37
Melt Flow	5.00 - 130 g/10 min	5.00 - 130 g/10 min	Average value: 28.1 g/10 min Grade Count:50
Ash	15.0 - 45.0 %	15.0 - 45.0 %	Average value: 30.0 % Grade Count:3

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	110 - 121	110 - 121	Average value: 118 Grade Count:11
Hardness, H358/30	101 - 234 MPa	14600 - 33900 psi	Average value: 142 MPa Grade Count:10
Ball Indentation Hardness	180 - 250 MPa	26100 - 36300 psi	Average value: 205 MPa Grade Count:4
Tensile Strength, Ultimate	70.0 - 175 MPa	10200 - 25400 psi	Average value: 122 MPa Grade Count:71
Tensile Strength, Yield	75.0 - 175 MPa	10900 - 25400 psi	Average value: 117 MPa Grade Count:25
Elongation at Break	1.10 - 90.0 %	1.10 - 90.0 %	Average value: 3.46 % Grade Count:69
Elongation at Yield	1.00 - 3.00 %	1.00 - 3.00 %	Average value: 2.37 % Grade Count:20
Modulus of Elasticity	5.00 - 19.0 GPa	725 - 2760 ksi	Average value: 10.2 GPa Grade Count:63
Flexural Yield Strength	110 - 260 MPa	16000 - 37700 psi	Average value: 177 MPa Grade Count:43
Flexural Modulus	4.12 - 16.2 GPa	597 - 2350 ksi	Average value: 8.50 GPa Grade Count:44
Izod Impact, Notched	0.350 - 1.08 J/cm	0.656 - 2.02 ft-lb/in	Average value: 0.713 J/cm Grade Count:32
	0.300 - 0.850 J/cm @Temperature -30.0 - 0.000 °C	0.562 - 1.59 ft-lb/in @Temperature -22.0 - 32.0 °F	Average value: 0.547 J/cm Grade Count:13
Izod Impact, Unnotched	2.50 - 8.27 J/cm	4.68 - 15.5 ft-lb/in	Average value: 5.56 J/cm Grade Count:15
	2.80 - 7.45 J/cm @Temperature -30.0 - -30.0 °C	5.25 - 14.0 ft-lb/in @Temperature -22.0 - -22.0 °F	Average value: 4.67 J/cm Grade Count:8
Izod Impact, Notched (ISO)	4.00 - 11.0 kJ/m²	1.90 - 5.23 ft-lb/in²	Average value: 8.26 kJ/m² Grade Count:31
	4.00 - 10.0 kJ/m² @Temperature -40.0 - 0.000 °C	1.90 - 4.76 ft-lb/in² @Temperature -40.0 - 32.0 °F	Average value: 7.70 kJ/m² Grade Count:29
Izod Impact, Unnotched (ISO)	22.0 - 65.0 kJ/m²	10.5 - 30.9 ft-lb/in²	Average value: 39.9 kJ/m² Grade Count:23
	20.0 - 60.0 kJ/m² @Temperature -30.0 - -30.0 °C	9.52 - 28.6 ft-lb/in² @Temperature -22.0 - -22.0 °F	Average value: 38.7 kJ/m² Grade Count:21
	2.30 - 7.00 J/cm²	10.9 - 33.3 ft-lb/in²	Average value: 4.54 J/cm² Grade

Mechanical Properties	Metric	English	Comments
Charpy Impact Unnotched			Count:41
	2.00 - 7.00 J/cm² @Temperature -30.0 - -30.0 °C	9.52 - 33.3 ft-lb/in² @Temperature -22.0 - -22.0 °F	Average value: 4.27 J/cm² Grade Count:34
Charpy Impact, Notched	0.380 - 2.30 J/cm²	1.81 - 10.9 ft-lb/in²	Average value: 0.890 J/cm² Grade Count:46
	0.400 - 1.20 J/cm² @Temperature -30.0 - -20.0 °C	1.90 - 5.71 ft-lb/in² @Temperature -22.0 - -4.00 °F	Average value: 0.897 J/cm² Grade Count:30
Dart Drop, Total Energy	5.00 - 8.00 J	3.69 - 5.90 ft-lb	Average value: 6.79 J Grade Count:14
Puncture Energy	2.10 - 3.50 J	1.55 - 2.58 ft-lb	Average value: 2.50 J Grade Count:5
	1.80 - 1.80 J @Temperature -30.0 - -30.0 °C	1.33 - 1.33 ft-lb @Temperature -22.0 - -22.0 °F	Average value: 1.80 J Grade Count:1
Tensile Creep Modulus, 1 hour	7200 - 16500 MPa	1.04e+6 - 2.39e+6 psi	Average value: 11700 MPa Grade Count:8
Tensile Creep Modulus, 1000 hours	6100 - 15000 MPa	885000 - 2.18e+6 psi	Average value: 10300 MPa Grade Count:8
Taber Abrasion, mg/1000 Cycles	17.0 - 45.0	17.0 - 45.0	Average value: 30.3 Grade Count:6

Thermal Properties	Metric	English	Comments
CTE, linear	2.00 - 55.0 µm/m-°C	1.11 - 30.6 µin/in-°F	Average value: 28.7 µm/m-°C Grade Count:46

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+13 - 2.00e+20 ohm-cm	1.00e+13 - 2.00e+20 ohm-cm	Average value: 1.03e+19 ohm-cm Grade Count:37
Surface Resistance	1.00e+13 - 5.40e+16 ohm	1.00e+13 - 5.40e+16 ohm	Average value: 4.62e+15 ohm Grade Count:30
Dielectric Constant	2.90 - 4.70	2.90 - 4.70	Average value: 3.79 Grade Count:31
Dielectric Strength	8.00 - 38.0 kV/mm	203 - 965 kV/in	Average value: 23.8 kV/mm Grade Count:27
Dissipation Factor	0.000800 - 0.0200	0.000800 - 0.0200	Average value: 0.00847 Grade Count:29
Arc Resistance	60.0 - 180 sec	60.0 - 180 sec	Average value: 110 sec Grade Count:3
Comparative Tracking Index	175 - 600 V	175 - 600 V	Average value: 275 V Grade Count:38
Hot Wire Ignition, HWI	60.0 - 120 sec	60.0 - 120 sec	Average value: 108 sec Grade Count:5

Electrical Properties	Metric	English	Comments
High Arc Application, HAI	15.0 - 120 arcs	15.0 - 120 arcs	Average value: 81.0 arcs Grade Count:3
High Voltage Arc-Tracking Rate, HVTR	150 mm/min	5.91 in/min	Average value: 150 mm/min 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