

Overview of materials for Polycarbonate/Polybutylene Terephthalate (PBT) Blend, Unreinforced

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate/Polybutylene Terephthalate (PBT) Blend, Unreinforced , Polyester, TP , Polybutylene Terephthalate (PBT)

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Polycarbonate/Polybutylene Terephthalate (PBT) Blend, Unreinforced". 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-PolycarbonatePolybutylene-Terephthalate-PBT-Blend-Unreinforced.php

Physical Properties	Metric	English	Comments
Density	1.10 - 1.60 g/cc	0.0397 - 0.0578 lb/in ³	Average value: 1.24 g/cc Grade Count:254
	1.02 - 1.03 g/cc @Temperature 260 - 260 °C	0.0368 - 0.0372 lb/in ³ @Temperature 500 - 500 °F	Average value: 1.02 g/cc Grade Count:15
Water Absorption	0.0300 - 0.500 %	0.0300 - 0.500 %	Average value: 0.215 % Grade Count:55
Moisture Absorption at Equilibrium	0.0300 - 0.200 %	0.0300 - 0.200 %	Average value: 0.122 % Grade Count:102
Water Absorption at Saturation	0.0100 - 0.500 %	0.0100 - 0.500 %	Average value: 0.339 % Grade Count:85
Viscosity	100000 - 295000 cP	100000 - 295000 cP	Average value: 233000 cP Grade Count:12
Maximum Moisture Content	0.0200	0.0200	Average value: 0.0200 Grade Count:17
Linear Mold Shrinkage	0.0000300 - 0.0200 cm/cm	0.0000300 - 0.0200 in/in	Average value: 0.00889 cm/cm Grade Count:211
Linear Mold Shrinkage, Transverse	0.00110 - 0.0180 cm/cm	0.00110 - 0.0180 in/in	Average value: 0.00975 cm/cm Grade Count:44
Melt Flow	1.90 - 60.0 g/10 min	1.90 - 60.0 g/10 min	Average value: 14.5 g/10 min Grade Count:169

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell L	80.0 - 89.0	80.0 - 89.0	Average value: 86.8 Grade Count:4
Hardness, Rockwell R	95.0 - 119	95.0 - 119	Average value: 113 Grade Count:25
Hardness, H358/30	81.0 - 114 MPa	11700 - 16500 psi	Average value: 97.2 MPa Grade Count:29

Mechanical Properties	Metric 9.0	English 9.0	Comments
Tensile Strength, Ultimate	30.0 - 110 MPa	4350 - 16000 psi	Average value: 49.7 MPa Grade Count:131
	20.0 - 20.0 MPa @Temperature 60.0 - 60.0 °C	2900 - 2900 psi @Temperature 140 - 140 °F	Average value: 20.0 MPa Grade Count:1
Tensile Strength, Yield	33.0 - 122 MPa	4790 - 17700 psi	Average value: 53.4 MPa Grade Count:223
Elongation at Break	2.00 - 250 %	2.00 - 250 %	Average value: 97.2 % Grade Count:216
	75.0 - 75.0 % @Temperature 60.0 - 120 °C	75.0 - 75.0 % @Temperature 140 - 248 °F	Average value: 91.7 % Grade Count:1
Elongation at Yield	2.00 - 20.0 %	2.00 - 20.0 %	Average value: 4.57 % Grade Count:136
	>= 10.0 % @Temperature 60.0 - 120 °C	>= 10.0 % @Temperature 140 - 248 °F	Average value: 10.0 % Grade Count:1
Modulus of Elasticity	1.40 - 5.12 GPa	203 - 743 ksi	Average value: 2.33 GPa Grade Count:141
	1.00 - 1.40 GPa @Temperature 60.0 - 120 °C	145 - 203 ksi @Temperature 140 - 248 °F	Average value: 1.20 GPa Grade Count:1
Flexural Yield Strength	43.0 - 183 MPa	6240 - 26500 psi	Average value: 82.0 MPa Grade Count:210
Flexural Modulus	1.55 - 19.3 GPa	225 - 2800 ksi	Average value: 2.35 GPa Grade Count:214
Izod Impact, Notched	0.350 - 981 J/cm	0.656 - 1840 ft-lb/in	Average value: 7.00 J/cm Grade Count:191
	0.300 - 7.50 J/cm @Temperature -50.0 - 0.000 °C	0.562 - 14.1 ft-lb/in @Temperature -58.0 - 32.0 °F	Average value: 3.76 J/cm Grade Count:89
	1.00 - 7.84532 J/cm @Temperature -40.0 - -20.0 °C	1.87 - 14.6975 ft-lb/in @Temperature -40.0 - -4.00 °F	Average value: 3.76 J/cm Grade Count:35
	1.00 - 7.84532 J/cm @Thickness 1.57 - 6.40 mm	1.87 - 14.6975 ft-lb/in @Thickness 0.0618 - 0.252 in	Average value: 3.76 J/cm Grade Count:35
Izod Impact, Unnotched	4.30 J/cm - NB	8.06 ft-lb/in - NB	Average value: 14.8 J/cm Grade Count:29

Mechanical Properties	Metric	English	Comments
	4.50 J/cm - NB	8.43 ft-lb/in - NB	Average value: 4.07 J/cm Grade Count:13
	@Temperature -30.0 - - 30.0 °C	@Temperature -22.0 - - 22.0 °F	
	4.50 - 4.50 J/cm	8.43 - 8.43 ft-lb/in	Average value: 4.07 J/cm Grade Count:1
	@Temperature -40.0 - - 40.0 °C	@Temperature -40.0 - - 40.0 °F	
	4.50 - 4.50 J/cm	8.43 - 8.43 ft-lb/in	Average value: 4.07 J/cm Grade Count:1
	@Thickness 3.20 - 3.20 mm	@Thickness 0.126 - 0.126 in	
Izod Impact, Notched (ISO)	4.00 - 65.0 kJ/m ²	1.90 - 30.9 ft-lb/in ²	Average value: 45.1 kJ/m ² Grade Count:95
	3.00 - 65.0 kJ/m ²	1.43 - 30.9 ft-lb/in ²	Average value: 27.3 kJ/m ² Grade Count:100
	@Temperature -40.0 - 0.000 °C	@Temperature -40.0 - 32.0 °F	
Izod Impact, Unnotched (ISO)	31.0 kJ/m ² - NB	14.8 ft-lb/in ² - NB	Average value: 32.7 kJ/m ² Grade Count:30
	20.0 kJ/m ² - NB	9.52 ft-lb/in ² - NB	Average value: 20.0 kJ/m ² Grade Count:34
	@Temperature -40.0 - - 30.0 °C	@Temperature -40.0 - - 22.0 °F	
Charpy Impact Unnotched	3.30 J/cm ² - NB	15.7 ft-lb/in ² - NB	Average value: 3.65 J/cm ² Grade Count:52
	2.20 J/cm ² - NB	10.5 ft-lb/in ² - NB	Average value: 2.85 J/cm ² Grade Count:56
	@Temperature -30.0 - - 20.0 °C	@Temperature -22.0 - - 4.00 °F	
Charpy Impact, Notched	0.400 - 7.50 J/cm ²	1.90 - 35.7 ft-lb/in ²	Average value: 4.77 J/cm ² Grade Count:111
	0.400 - 5.50 J/cm ²	1.90 - 26.2 ft-lb/in ²	Average value: 2.45 J/cm ² Grade Count:64
	@Temperature -30.0 - 0.000 °C	@Temperature -22.0 - 32.0 °F	
Gardner Impact	43.0 - 54.0 J	31.7 - 39.8 ft-lb	Average value: 48.5 J Grade Count:5
Dart Drop, Total Energy	5.11 - 100 J	3.77 - 73.8 ft-lb	Average value: 56.4 J Grade Count:70
	4.86739 - 70.0 J	3.59000 - 51.6 ft-lb	Average value: 51.3 J Grade Count:19
	@Temperature -40.0 - - 20.0 °C	@Temperature -40.0 - - 4.00 °F	
Puncture Energy	45.0 - 47.0 J	33.2 - 34.7 ft-lb	Average value: 46.3 J Grade Count:8
	55.0 - 58.0 J	40.6 - 42.8 ft-lb	Average value: 57.0 J Grade Count:8
	@Temperature -30.0 - -	@Temperature -22.0 - -	

Mechanical Properties	30.0 °C Metric	22.0 °F English	Comments
Taber Abrasion, mg/1000 Cycles	20.0 - 40.0	20.0 - 40.0	Average value: 31.0 Grade Count:25

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+13 - 1.00e+17 ohm-cm	1.00e+13 - 1.00e+17 ohm-cm	Average value: 1.18e+16 ohm-cm Grade Count:64
Surface Resistance	1.00e+9 - 6.02e+16 ohm	1.00e+9 - 6.02e+16 ohm	Average value: 2.89e+15 ohm Grade Count:50
Dielectric Constant	2.80 - 3.80	2.80 - 3.80	Average value: 3.17 Grade Count:50
Dielectric Strength	14.0 - 35.0 kV/mm	356 - 889 kV/in	Average value: 22.1 kV/mm Grade Count:49
Dissipation Factor	0.000600 - 0.0300	0.000600 - 0.0300	Average value: 0.00904 Grade Count:47
Arc Resistance	0.000 - 180 sec	0.000 - 180 sec	Average value: 111 sec Grade Count:29
Comparative Tracking Index	100 - 600 V	100 - 600 V	Average value: 420 V Grade Count:54

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