

## Overview of materials for Polyphenylene Ether + Styrene-Butadiene Blend

Category : Polymer , Thermoplastic , Polyphenylene Ether/PPO , Polyphenylene Ether + Styrene-Butadiene Blend

### Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Polyphenylene Ether + Styrene-Butadiene Blend". 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-Styrene-Butadiene-Blend.php](http://www.lookpolymers.com/polymer_Overview-of-materials-for-Polyphenylene-Ether-Styrene-Butadiene-Blend.php)

Physical Properties	Metric	English	Comments
Density	1.06 - 1.10 g/cc	0.0383 - 0.0397 lb/in <sup>3</sup>	Average value: 1.07 g/cc Grade Count:9
Water Absorption	0.300 - 0.400 %	0.300 - 0.400 %	Average value: 0.356 % Grade Count:9
Moisture Absorption at Equilibrium	0.100 - 0.150 %	0.100 - 0.150 %	Average value: 0.128 % Grade Count:9
Linear Mold Shrinkage	0.00600 cm/cm	0.00600 in/in	Average value: 0.00600 cm/cm Grade Count:9
Melt Flow	8.00 - 130 g/10 min	8.00 - 130 g/10 min	Average value: 64.2 g/10 min Grade Count:9

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	50.0 - 80.0 MPa	7250 - 11600 psi	Average value: 62.7 MPa Grade Count:9
Elongation at Break	20.0 - 50.0 %	20.0 - 50.0 %	Average value: 35.0 % Grade Count:9
Elongation at Yield	4.00 - 6.00 %	4.00 - 6.00 %	Average value: 5.00 % Grade Count:9
Modulus of Elasticity	2.20 - 2.80 GPa	319 - 406 ksi	Average value: 2.54 GPa Grade Count:9
Charpy Impact Unnotched	5.00 J/cm <sup>2</sup> - NB	23.8 ft-lb/in <sup>2</sup> - NB	Average value: 5.00 J/cm <sup>2</sup> Grade Count:9
	1.00 J/cm <sup>2</sup> - NB @Temperature -30.0 - - 30.0 °C	4.76 ft-lb/in <sup>2</sup> - NB @Temperature -22.0 - - 22.0 °F	Average value: 2.19 J/cm <sup>2</sup> Grade Count:9
Charpy Impact, Notched	1.60 - 3.20 J/cm <sup>2</sup>	7.61 - 15.2 ft-lb/in <sup>2</sup>	Average value: 2.22 J/cm <sup>2</sup> Grade Count:9
	1.60 - 3.20 J/cm <sup>2</sup> @Temperature -30.0 - - 30.0 °C	7.61 - 15.2 ft-lb/in <sup>2</sup> @Temperature -22.0 - - 22.0 °F	Average value: 2.22 J/cm <sup>2</sup> Grade Count:9
	1850 - 1950 MPa	268000 - 283000 psi	Average value: 1900 MPa Grade

<b>Tensile Creep Modulus, 1000 hours Mechanical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Count:3 Comments</b>
<b>Thermal Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
CTE, linear	65.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	36.1 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	Average value: 65.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ Grade Count:9
Deflection Temperature at 0.46 MPa (66 psi)	107 - 157 $^{\circ}\text{C}$	225 - 315 $^{\circ}\text{F}$	Average value: 126 $^{\circ}\text{C}$ Grade Count:9
Deflection Temperature at 1.8 MPa (264 psi)	100 - 140 $^{\circ}\text{C}$	212 - 284 $^{\circ}\text{F}$	Average value: 114 $^{\circ}\text{C}$ Grade Count:9
Vicat Softening Point	108 - 160 $^{\circ}\text{C}$	226 - 320 $^{\circ}\text{F}$	Average value: 128 $^{\circ}\text{C}$ Grade Count:9
Flammability, UL94	HB - V-0	HB - V-0	Grade Count:9
Oxygen Index	22.0 - 37.0 %	22.0 - 37.0 %	Average value: 27.0 % Grade Count:4

<b>Electrical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Electrical Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	Average value: 1.00e+15 ohm-cm Grade Count:9
Surface Resistance	1.00e+14 ohm	1.00e+14 ohm	Average value: 1.00e+14 ohm Grade Count:9
Dielectric Constant	2.50 - 2.90	2.50 - 2.90	Average value: 2.69 Grade Count:9
Dielectric Strength	90.0 - 95.0 kV/mm	2290 - 2410 kV/in	Average value: 91.7 kV/mm Grade Count:9
Dissipation Factor	0.000500 - 0.00600	0.000500 - 0.00600	Average value: 0.00272 Grade Count:9
Comparative Tracking Index	250 - 300 V	250 - 300 V	Average value: 283 V Grade Count:9

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