

Overview of materials for Phenolic/Rubber; Molded

Category : Polymer , Thermoset , Phenolic , Phenolic/Rubber; Molded

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Phenolic/Rubber; Molded". 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-PhenolicRubber-Molded.php

Physical Properties	Metric	English	Comments
Density	1.34 - 1.60 g/cc	0.0484 - 0.0578 lb/in ³	Average value: 1.51 g/cc Grade Count:3
Water Absorption	0.155 - 0.920 %	0.155 - 0.920 %	Average value: 0.413 % Grade Count:3
Linear Mold Shrinkage	0.00110 - 0.00790 cm/cm	0.00110 - 0.00790 in/in	Average value: 0.00378 cm/cm Grade Count:3

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell E	43.0 - 76.0	43.0 - 76.0	Average value: 54.3 Grade Count:3
Tensile Strength, Ultimate	34.0 - 74.0 MPa	4930 - 10700 psi	Average value: 54.7 MPa Grade Count:3
Elongation at Break	0.730 - 1.47 %	0.730 - 1.47 %	Average value: 0.983 % Grade Count:3
Modulus of Elasticity	4.50 - 9.60 GPa	653 - 1390 ksi	Average value: 7.77 GPa Grade Count:3
Flexural Yield Strength	56.0 - 115 MPa	8120 - 16700 psi	Average value: 87.0 MPa Grade Count:3
Flexural Modulus	3.60 - 8.90 GPa	522 - 1290 ksi	Average value: 6.97 GPa Grade Count:3
Compressive Yield Strength	82.0 - 157 MPa	11900 - 22800 psi	Average value: 118 MPa Grade Count:3
Izod Impact, Notched	0.233 - 0.470 J/cm	0.437 - 0.881 ft-lb/in	Average value: 0.364 J/cm Grade Count:3
Charpy Impact, Notched	0.281 - 0.450 J/cm ²	1.34 - 2.14 ft-lb/in ²	Average value: 0.357 J/cm ² Grade Count:3

Thermal Properties	Metric	English	Comments
CTE, linear	53.0 - 53.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ @Temperature 40.0 - 130 $^\circ\text{C}$	29.4 - 29.4 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ @Temperature 104 - 266 $^\circ\text{F}$	Average value: 53.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ Grade Count:1

Thermal Properties	Metric	English	Comments
Thermal Conductivity	0.440 W/m-K @Temperature 100 - 100 °C	0.85 BTU-in/hr- ft ² -°F @Temperature 212 - 212 °F	Average value: 0.440 W/m-K Grade Count:1
Maximum Service Temperature, Air	92.0 - 244 °C	198 - 471 °F	Average value: 148 °C Grade Count:8
Deflection Temperature at 1.8 MPa (264 psi)	136 - 241 °C	277 - 466 °F	Average value: 203 °C Grade Count:3
Oxygen Index	24.6 - 37.0 %	24.6 - 37.0 %	Average value: 32.5 % Grade Count:3

Electrical Properties	Metric	English	Comments
Electrical Resistivity	2.00e+11 - 6.40e+11 ohm-cm	2.00e+11 - 6.40e+11 ohm-cm	Average value: 4.87e+11 ohm-cm Grade Count:3
Dielectric Constant	4.50 - 5.80	4.50 - 5.80	Average value: 5.27 Grade Count:3
Dielectric Strength	10.5 - 13.2 kV/mm	267 - 335 kV/in	Average value: 12.0 kV/mm Grade Count:3
Dissipation Factor	0.0770 - 0.0830	0.0770 - 0.0830	Average value: 0.0803 Grade Count:3
Arc Resistance	67.0 - 135 sec	67.0 - 135 sec	Average value: 107 sec Grade Count:3
Comparative Tracking Index	150 - 175 V	150 - 175 V	Average value: 167 V Grade Count:3

Processing Properties	Metric	English	Comments
Processing Temperature	150 - 180 °C	302 - 356 °F	Average value: 166 °C Grade Count:5
Cure Time	0.583 - 3.00 min	0.00972 - 0.0500 hour	Average value: 1.63 min Grade Count:5

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