

## Overview of materials for Epoxy Molding Compound

Category : Polymer , Thermoset , Epoxy , Epoxy Molding Compound

### Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Epoxy Molding Compound". 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-Epoxy-Molding-Compound.php](http://www.lookpolymers.com/polymer_Overview-of-materials-for-Epoxy-Molding-Compound.php)

Physical Properties	Metric	English	Comments
Density	0.550 - 2.45 g/cc	0.0199 - 0.0885 lb/in <sup>3</sup>	Average value: 1.76 g/cc Grade Count:71
Apparent Bulk Density	0.700 - 1.30 g/cc	0.0253 - 0.0470 lb/in <sup>3</sup>	Average value: 0.950 g/cc Grade Count:5
Water Absorption	0.00340 - 0.600 %	0.00340 - 0.600 %	Average value: 0.179 % Grade Count:17
Moisture Absorption at Equilibrium	0.230 - 0.600 %	0.230 - 0.600 %	Average value: 0.363 % Grade Count:12
Viscosity	600 - 45000 cP	600 - 45000 cP	Average value: 6480 cP Grade Count:48
	@Temperature 165 - 175 °C	@Temperature 329 - 347 °F	
	1700 - 1700 cP	1700 - 1700 cP	
Linear Mold Shrinkage	@Temperature 175 - 175 °C	@Temperature 347 - 347 °F	Average value: 6480 cP Grade Count:1
	1700 - 1700 cP	1700 - 1700 cP	
	@Diameter 0.500 - 0.500 mm	@Diameter 0.0197 - 0.0197 in	
Spiral Flow	48.0 - 180 cm	18.9 - 70.9 in	Average value: 107 cm Grade Count:52
Ash	71.4 - 88.6 %	71.4 - 88.6 %	Average value: 79.3 % Grade Count:37

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	55.0 - 86.0	55.0 - 86.0	Average value: 76.1 Grade Count:55
Tensile Strength, Ultimate	13.8 - 300 MPa	2000 - 43500 psi	Average value: 89.6 MPa Grade Count:23

Mechanical Properties	80.0 - 123 MPa Metric	11600 - 17800 psi English	Comments Average value: 97.0 MPa Grade Count:2
	@Temperature 150 - 250 °C	@Temperature 302 - 482 °F	
Elongation at Break	0.300 - 2.00 %	0.300 - 2.00 %	Average value: 0.780 % Grade Count:10
	0.300 - 0.700 %	0.300 - 0.700 %	Average value: 0.500 % Grade Count:2
	@Temperature 150 - 250 °C	@Temperature 302 - 482 °F	
Modulus of Elasticity	1.38 - 46.0 GPa	200 - 6670 ksi	Average value: 19.2 GPa Grade Count:16
	14.0 - 32.0 GPa	2030 - 4640 ksi	Average value: 23.3 GPa Grade Count:2
	@Temperature 150 - 250 °C	@Temperature 302 - 482 °F	
Flexural Yield Strength	35.5 - 400 MPa	5150 - 58000 psi	Average value: 134 MPa Grade Count:70
	6.86442 - 345 MPa	995.602 - 50000 psi	Average value: 58.4 MPa Grade Count:28
	@Temperature 150 - 260 °C	@Temperature 302 - 500 °F	
Flexural Modulus	2.41 - 32.0 GPa	349 - 4640 ksi	Average value: 16.6 GPa Grade Count:67
	0.686465 - 30.0 GPa	99.5649 - 4350 ksi	Average value: 6.87 GPa Grade Count:28
	@Temperature 150 - 260 °C	@Temperature 302 - 500 °F	
Compressive Yield Strength	6.89 - 350 MPa	1000 - 50800 psi	Average value: 161 MPa Grade Count:21
	127 - 219 MPa	18400 - 31800 psi	Average value: 172 MPa Grade Count:2
	@Temperature 150 - 250 °C	@Temperature 302 - 482 °F	
Compressive Modulus	1.03 - 35.0 GPa	150 - 5080 ksi	Average value: 8.95 GPa Grade Count:5
Adhesive Bond Strength	8.96 - 15.9 MPa	1300 - 2310 psi	Average value: 11.7 MPa Grade Count:3
	13.8 - 15.9 MPa	2000 - 2310 psi	Average value: 14.9 MPa Grade Count:1
	@Temperature -55.0 - 93.0 °C	@Temperature -67.0 - 199 °F	
Izod Impact, Notched	0.299 - 21.0 J/cm	0.560 - 39.3 ft-lb/in	Average value: 10.9 J/cm Grade Count:4
Charpy Impact Unnotched	0.200 - 0.900 J/cm <sup>2</sup>	0.952 - 4.28 ft-lb/in <sup>2</sup>	Average value: 0.590 J/cm <sup>2</sup> Grade Count:5
Charpy Impact, Notched	0.150 - 5.40 J/cm <sup>2</sup>	0.714 - 25.7 ft-lb/in <sup>2</sup>	Average value: 2.85 J/cm <sup>2</sup> Grade Count:12

Mechanical Properties	Metric	English	Comments
CTE, linear	3.30 - 80.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	1.83 - 44.4 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	Average value: 31.4 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ Grade Count:59
	15.0 - 25.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ @Temperature 50.0 - 150 $^\circ\text{C}$	8.33 - 13.9 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ @Temperature 122 - 302 $^\circ\text{F}$	Average value: 19.2 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ Grade Count:3
CTE, linear, Transverse to Flow	40.0 - 80.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	22.2 - 44.4 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	Average value: 59.3 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ Grade Count:21
Thermal Conductivity	0.400 - 1.34 W/m-K	2.78 - 9.30 BTU-in/hr-ft <sup>2</sup> - $^\circ\text{F}$	Average value: 0.731 W/m-K Grade Count:54
Maximum Service Temperature, Air	93.0 - 250 $^\circ\text{C}$	199 - 482 $^\circ\text{F}$	Average value: 178 $^\circ\text{C}$ Grade Count:6
Deflection Temperature at 1.8 MPa (264 psi)	149 - 243 $^\circ\text{C}$	300 - 469 $^\circ\text{F}$	Average value: 211 $^\circ\text{C}$ Grade Count:7
Deflection Temperature at 8.0 MPa	115 - 180 $^\circ\text{C}$	239 - 356 $^\circ\text{F}$	Average value: 144 $^\circ\text{C}$ Grade Count:5
Glass Transition Temp, Tg	75.0 - 275 $^\circ\text{C}$	167 - 527 $^\circ\text{F}$	Average value: 178 $^\circ\text{C}$ Grade Count:63
Flammability, UL94	HB - V-0	HB - V-0	Grade Count:55
Oxygen Index	28.0 - 34.0 %	28.0 - 34.0 %	Average value: 31.8 % Grade Count:18

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+12 - 5.60e+16 ohm-cm	1.00e+12 - 5.60e+16 ohm-cm	Average value: 9.96e+15 ohm-cm Grade Count:45
	1.00e+9 - 3.20e+12 ohm-cm @Temperature 150 - 150 $^\circ\text{C}$	1.00e+9 - 3.20e+12 ohm-cm @Temperature 302 - 302 $^\circ\text{F}$	Average value: 1.03e+12 ohm-cm Grade Count:8
Surface Resistance	1.00e+12 - 1.00e+15 ohm	1.00e+12 - 1.00e+15 ohm	Average value: 2.31e+14 ohm Grade Count:5
Dielectric Constant	3.13 - 7.00	3.13 - 7.00	Average value: 3.93 Grade Count:52
Dielectric Strength	1.40 - 55.1 kV/mm	35.6 - 1400 kV/in	Average value: 22.9 kV/mm Grade Count:55
Dissipation Factor	0.000300 - 0.0500	0.000300 - 0.0500	Average value: 0.00748 Grade Count:41
Arc Resistance	180 - 240 sec	180 - 240 sec	Average value: 185 sec Grade Count:23
Comparative Tracking Index	225 - 600 V	225 - 600 V	Average value: 378 V Grade Count:9

Processing Properties	Metric	English	Comments
Processing Temperature	135 - 193 °C	275 - 379 °F	Average value: 172 °C Grade Count:18
Mold Temperature	160 - 190 °C	320 - 374 °F	Average value: 175 °C Grade Count:39
Cycle Time - Injection	30.0 - 150 sec	30.0 - 150 sec	Average value: 82.0 sec Grade Count:5
Cure Time	0.250 - 10100 min	0.00417 - 168 hour	Average value: 489 min Grade Count:28

## 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