

## G-9 Fiberglass Melamine Laminate Sheet

Category : Polymer , Thermoset , Filled/Reinforced Thermoset , Melamine

### Material Notes:

This material is very hard, flame resistant, and has excellent electrical properties. G-9 has high arc and heat resistance and is recommended for humid environments. It is used for switch board panels, arc barriers, circuit breaker parts, and structural electrical parts. G-9 and similar fiberglass reinforced thermosets are sometimes known as garolite. Information provide by Boedeker Plastics.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_G-9-Fiberglass-Melamine-Laminate-Sheet.php](http://www.lookpolymers.com/polymer_G-9-Fiberglass-Melamine-Laminate-Sheet.php)

Physical Properties	Metric	English	Comments
Density	1.85 g/cc	0.0668 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.60 %	0.60 %	24 hrs.; ASTM D570

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	115	115	ASTM D785
Tensile Strength at Break	352 MPa	51100 psi	Crosswise; ASTM D638
	425 MPa	61600 psi	Lengthwise; ASTM D638
Flexural Strength	352 MPa	51100 psi	Crosswise; ASTM D790
	425 MPa	61600 psi	Lengthwise; ASTM D790
Flexural Modulus	11.7 GPa	1700 ksi	Crosswise; ASTM D790
	13.8 GPa	2000 ksi	Lengthwise; ASTM D790
Compressive Strength	448 MPa	65000 psi	ASTM D695
Izod Impact, Notched	4.54 J/cm	8.50 ft-lb/in	Crosswise; ASTM D256
	6.67 J/cm	12.5 ft-lb/in	Lengthwise; ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear	14.9 $\mu\text{m}/\text{m}\cdot\text{°C}$	8.30 $\mu\text{in}/\text{in}\cdot\text{°F}$	Lengthwise; ASTM D696
	@Temperature 20.0 °C	@Temperature 68.0 °F	
CTE, linear, Transverse to Flow	18.0 $\mu\text{m}/\text{m}\cdot\text{°C}$	10.0 $\mu\text{in}/\text{in}\cdot\text{°F}$	Crosswise; ASTM D696
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Thermal Conductivity	0.288 W/m-K	2.00 BTU-in/hr-ft <sup>2</sup> -°F	ASTM C177
Maximum Service Temperature, Air	140 °C	284 °F	

Thermal Properties	Metric	English	Comments
Electrical Properties	Metric	English	Comments
Dielectric Constant	6.3 @Frequency 1e+6 Hz	6.3 @Frequency 1e+6 Hz	ASTM D150
Dielectric Strength	11.8 kV/mm	300 kV/in	Short Time; 1/8 inch; ASTM D149
Dissipation Factor	0.019 @Frequency 1e+6 Hz	0.019 @Frequency 1e+6 Hz	ASTM D150
Arc Resistance	180 sec	180 sec	ASTM D495

## Contact Songhan Plastic Technology Co.,Ltd.

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