

Rogers Corporation R04450F Prepreg

Category : Polymer , Thermoset

Material Notes:

Prepreg is commonly used to inexpensively form less critical signal layers in antenna designs. A high post-cure Tg makes R04400 series prepreg an excellent choice for multi-layers requiring sequential laminations as fully cured R04400 prepregs are capable of handling multiple lamination cycle. R04450F™ prepreg has demonstrated improvement in lateral flow capability. Information provided by Rogers Corporation.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Rogers-Corporation-R04450F-Prepreg.php

Physical Properties	Metric	English	Comments
Density	1.83 g/cc	0.0661 lb/in ³	ASTM D792
Moisture Absorption at Equilibrium	0.090 % @Temperature 50.0 °C, Time 173000 sec	0.090 % @Temperature 122 °F, Time 48.0 hour	Immersion; 0.06 in thick; ASTM D570
Thickness	102 microns	4.00 mil	

Mechanical Properties	Metric	English	Comments
Peel Strength	0.701 kN/m	4.00 pli	Copper adhesion; Z direction; 1/2 oz. EDC After Solder Float; IPC-TM-650 2.4.8

Thermal Properties	Metric	English	Comments
CTE, linear	17.0 µm/m-°C @Temperature -55.0 - 280 °C	9.44 µin/in-°F @Temperature -67.0 - 536 °F	Y Direction; IPC-TM-650 2.4.41
	19.0 µm/m-°C @Temperature -55.0 - 280 °C	10.6 µin/in-°F @Temperature -67.0 - 536 °F	X Direction; IPC-TM-650 2.4.41
	50.0 µm/m-°C @Temperature -55.0 - 280 °C	27.8 µin/in-°F @Temperature -67.0 - 536 °F	Z Direction; IPC-TM-650 2.4.41
Thermal Conductivity	0.650 W/m-K @Temperature 80.0 °C	4.51 BTU-in/hr-ft ² -°F @Temperature 176 °F	Z Direction; ASTM C518
Glass Transition Temp, Tg	>= 280 °C @Temperature -60.0 - 300 °C	>= 536 °F @Temperature -76.0 - 572 °F	10°C/min, TGA; IPC-TM-650 2.4.24

Decomposition Temperature Thermal Properties	399 °C Metric	734 °F English	TGA: ASTM D3850 Comments
Flammability, UL94	V-0	V-0	

Electrical Properties	Metric	English	Comments
Volume Resistivity	8.93e+14 ohm-cm	8.93e+14 ohm-cm	50% RH; IPC 2.5.17.1
Dielectric Constant	3.47 - 3.57	3.47 - 3.57	Z direction; IPC-TM-650 2.5.5.5
	@Frequency 1.00e+10 Hz	@Frequency 1.00e+10 Hz	
Dielectric Strength	39.4 kV/mm	1000 kV/in	Z Direction, 50% RH; IPC-TM-650 2.5.6.2
Dissipation Factor	0.0040	0.0040	Z direction; IPC-TM-650 2.5.5.5
	@Frequency 1.00e+10 Hz	@Frequency 1.00e+10 Hz	

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