

## Rogers Corporation R03006 Ceramic-Filled PTFE Composite, High Frequency Circuit Material

Category : Polymer , Thermoplastic , Fluoropolymer , PTFE , Polytetrafluoroethylene (PTFE), Glass Filled, Molded

Material Notes:

Features and Benefits:

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Rogers-Corporation-R03006-Ceramic-Filled-PTFE-Composite-High-Frequency-Circuit-Material.php](http://www.lookpolymers.com/polymer_Rogers-Corporation-R03006-Ceramic-Filled-PTFE-Composite-High-Frequency-Circuit-Material.php)

Physical Properties	Metric	English	Comments
Density	2.60 g/cc	0.0939 lb/in <sup>3</sup>	
Water Absorption	<= 0.10 %	<= 0.10 %	D24/23; IPC-TM-2.4.8

Mechanical Properties	Metric	English	Comments
Tensile Modulus	2.07 GPa	300 ksi	X, Y-Direction; ASTM D638
Peel Strength	1.24 kN/m	7.10 pli	Copper; 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	9.44 µin/in-°F	X-Direction; ASTM D3386-94
	@Temperature -55.0 - 288 °C	@Temperature -67.0 - 550 °F	
	17.0 µm/m-°C	9.44 µin/in-°F	
	@Temperature -55.0 - 288 °C	@Temperature -67.0 - 550 °F	Y-Direction; ASTM D3386-94
	24.0 µm/m-°C	13.3 µin/in-°F	Z-Direction; ASTM D3386-94
	@Temperature -55.0 - 288 °C	@Temperature -67.0 - 550 °F	
Specific Heat Capacity	0.860 J/g-°C	0.206 BTU/lb-°F	Calculated
Thermal Conductivity	0.790 W/m-K	5.48 BTU-in/hr-ft <sup>2</sup> -°F	Z Direction; ASTM C518
	@Temperature 80.0 °C	@Temperature 176 °F	
Decomposition Temperature	500 °C	932 °F	TGA; ASTM D3850
Flammability, UL94	V-0	V-0	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+11 ohm-cm	1.00e+11 ohm-cm	Cond. A; IPC 2.5.17.1

Surface Resistance Electrical Properties	1.00e+11 ohm Metric	1.00e+11 ohm English	Cond. A: IPC 2.5.17.1 Comments
Dielectric Constant	6.0 - 6.3	6.0 - 6.3	Clamped stripline, Z-direction; IPC-TM-650 2.5.5.5
	@Frequency 1.00e+10 Hz	@Frequency 1.00e+10 Hz	
	6.5	6.5	Differential Phase Length Method, Z-Direction
	@Frequency 8.00e+9 - 4.00e+10 Hz	@Frequency 8.00e+9 - 4.00e+10 Hz	
Dissipation Factor	0.0020	0.0020	IPC-TM-650 2.5.5.5
	@Frequency 1.00e+10 Hz	@Frequency 1.00e+10 Hz	

Descriptive Properties	Value	Comments
Dimensional Stability	0.5 mm/m	ASTM D257, Cond. A; X, Y-direction
Thermal Coefficient of Dielectric Constant	-160 ppm/°C	IPC-TM-650 2.5.5.5; 10 GHz; 0°C to 100°C; Z-Direction

## 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