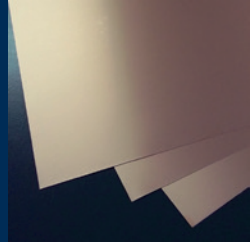
CG-11

HIGH HEAT RESISTANCE COPPER CLAD LAMINATE



MICAM's CG-11 is a high heat resistance epoxy-glass copper clad laminate with excellent mechanical and electrical performance

Characteristics	Excellent electrical and mechanical properties at elevated temperatures
Colours	Black
Thickness	0.1 mm to 0.8 mm
Copper	18 µm or 35 µm (other copper thickness available)
Sheet Size	1220 mm x 1060 mm (panel sizes cut on request)

		units	*test method*
GENERAL PROPERTIES			
Relative Density	1.9	g/cm^3	
Temperature Rating	155 (Class F)	°C	
Water Absorption	0.15	% (1.6 mm)	IPC-TM-650 2.6.2.1
Glass Transition Temperature	c. 160	°C	IPC-TM-650 2.4.25
MECHANICAL PROPERTIES			
Flexural Strength Lengthwise	510	MPa (1.6 mm)	IPC-TM-650 2.4.4
Flexural Strength Crosswise	430	MPa (1.6 mm)	IPC-TM-650 2.4.4
Flexural Strength @ elevated temperature crosswise	430	MPa (1.6 mm)	IPC-TM-650 2.4.4
Thermal Stress – 10 secs @ 288°C unetched		Pass/Visual	IPC-TM-650 2.4.13.1
Thermal Stress – 10 secs @ 288°C etched		Pass/Visual	IPC-TM-650 2.4.13.1
Copper Peel Strength	1.8	N/mm (18 µm)	IPC-TM-650 2.4.8
Solder dip at 260°C	>30	s	
ELECTRICAL PROPERTIES			
Volume Resistivity C-96/35/90	10^9	MΩcm (0.5 mm)	IPC-TM-650 2.5.17.1
Volume Resistivity E-24/150	10^7	MΩcm (0.5 mm)	IPC-TM-650 2.5.17.1
Surface Restivity C-96/35/90	10^{10}	MΩ (0.5 mm)	IPC-TM-650 2.5.17.1
Surface Restivity E-24/150	10^7	MΩ (0.5 mm)	IPC-TM-650 2.5.17.1
Dielectric Breakdown	60	kV (1.6 mm)	IPC-TM-650 2.5.6
Loss Tangent at 1 MHz	0.008	-	IPC-TM-650 2.5.5.3
Permittivity at 1 MHz	4.2	-	IPC-TM-650 2.5.5.3

CONDITIONING

C-96/35/90 – 90% Relative Humidity @ 35°C for 90 hours

SPECIFICATION COMPLIANCE

IPC-4101/22; NEMA L1-1 G-11

ENVIRONMENTAL COMPLIANCE

RoHS compliant; REACH compliant

QUALITY SYSTEM APPROVAL

Certified by NSAI to I.S. EN ISO 9001:2015 Reg. No. IE-19.0675.

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