

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 μ m or 35 μ m (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	
Flammability	V-1 -	UL-94
Water Absorption	0.15 % (1.6 mm)	IPC-TM-650 2.6.2.1
Glass Transition Temperature	< 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 μ m)	IPC-TM-650 2.4.8
Solder dip at 260°C	> 30 s	
ELECTRICAL PROPERTIES		
Volume Resistivity C-96/35/90	10 ⁹ M Ω cm (0.5 mm)	IPC-TM-650 2.5.17.1
Volume Resistivity E-24/150	10 ⁷ M Ω cm (0.5 mm)	IPC-TM-650 2.5.17.1
Surface Restivity C-96/35/90	10 ¹⁰ M Ω (0.5 mm)	IPC-TM-650 2.5.17.1
Surface Restivity E-24/150	10 ⁷ M Ω (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 L1-1-1998:G-11; IEC249-2-4 EP-GC-CU

ENVIRONMENTAL COMPLIANCE

RoHS compliant; REACH compliant

QUALITY SYSTEM APPROVAL

Certified by NSAI to I.S. ENISO 9001:2008

MICAM LIMITED · TEL + 353 22 21345 · EMAIL info@micam.com · WEB www.micam.com

