



# METCLAD

INTERNATIONAL CORP

**FAMILY**  
**MYST**

MYST is our lowest loss, high performance, metal clad laminate family specifically designed for millimetre wave, microwave and RF applications. They are manufactured from woven glass reinforced PTFE. The percentage of PTFE is very tightly controlled to accurately maintain the specified value of dielectric constant, loss and thickness. Metclad MYST laminates are tested in accordance with IPC-TM-650 and meet the requirements of IPC-L-125A. This material is available in a range of dielectric and cladding thicknesses.

<b>DK</b>	2.17	2.20	2.33
<b>DF</b>	.0008	.0009	.0011

Typical Parameter	Test Method	Typical Value
Dielectric Constant at 10GHz	IPC-TM-650, 2.5.5.5	see above
Tolerance		± 0.02
Dissipation Factor at 10GHz	IPC-TM-650, 2.5.5.5	see above
Intermodulation Performance		n/a
Dielectric Breakdown	IPC-TM-650, 2.5.6	50kV
Volume Resistivity	IPC-TM-650, 2.5.17.1	10 <sup>9</sup> MΩ/cm
Surface Resistivity	IPC-TM-650, 2.5.17.1	10 <sup>7</sup> MΩ
Arc Resisance	ASTM D-495	180 sec
Flexural Strength Lengthwise	IPC-TM-650, 2.4.4	12,000 lbs/in
Flexural Strength Crosswise	IPC-TM-650, 2.4.4	10,000 lbs/in
Copper Peel Strength (18, 35 and 70µm copper) After Thermal Shock (30s at 260°C)	IPC-TM-650, 2.4.8	13 lbs/in 12 lbs/in
Moisture Absorption	IPC-TM-650, 2.6.2.1	0.02%
Specific Gravity	ASTM D-792, A	2.23 g/cm <sup>3</sup>
Thermal Conductivity	ASTM E-1225	0.272 W/m/K
Coefficient of Thermal Expansion (CTE) X Y Z	IPC-TM-650, 2.4.41	25 ppm/°C 35 ppm/°C 260 ppm/°C
Flamibility	IPC-TM-650, 2.3.10	V-0

The above represents typical values. As a policy of continuous improvement, Metclad International Corp. reserves the right to change specifications at any time.