Bendable low-thermal-resistance Material
CS-8000IMC(FCCL-Copper-Based)
CS-8000IMA(MCCL-Aluminum Based)

Specification of Metal Based Copper–Clad Clad Laminate

Item	Unit		Specification	Test condition
Insulation thickness	μm	Max Min	45 27	—
Solder resistance (288°C)	Sec.	Min	600	IPC-TM-650 3.10.1.12
Thermal shock	288˚C*10"/cycle	Min	6 Times	IPC-TM-650 2.4.13.1
Peel strength (Normal status)	lb/in	Min	7	IPC-TM-650 2.4.8
Breakdown Voltage	V/mil		1500	IPC-TM-650 2.5.6
Volume resistivity (Normal status >E+14)	Ω · cm		10^{13}	IPC-TM-650 2.5.17.1
Surface resistivity (Normal status >E+12)	Ω	—	10^{12}	IPC-TM-650 2.5.17.1
Dielectric constant 1 MHz Normal status 1 GHz Normal status	—		 4.1 4.0	IPC-TM-650 2.5.5.3 2.5.5.5 2.5.5.6
Dissipation Factor 1 MHz Normal status 1 GHz Normal status			 0.005 0.004	IPC-TM-650 2.5.5.3 2.5.5.5 2.5.5.9
Water absorption	%		0.8	IPC-TM-650 2.6.2.1
Thermal conductivity (measured on insulation layer only)	W/m˚C		0.5	ASTM-D5470
Flammability	94V-0		Pass	IPC-TM-650 2.3.9
Tg	˚C		280	IPC-TM-650 2.4.24
Td	˚C		470	TBD (5wt% loss)
MOT (RTI)	˚C		140	UL 746B
CTI (Comparative Tracking Index)	V		>250 (PLC=2)	UL746E DSR

The thickness and dimension of Mecal Based Copper-clad Laminate

Product category	CS-8000IMC/IMA (The thickness of glue is 27-45mm)				
Dimension m/m	300~340×500 400~410×500 600~620×500 1200~1240×500				
Normal thickness spec. of Single-Sided MCCL with Copper Substrate(IMC)	1/3x32μm	1/3x45μm	1/2x32μm	1/2x45μm	1/3x27μm
Normal thickness spec. of Single-Sided MCCL with Aluminum Substrate(IMA)	0.6x32μmX1/0	0.8x32μmX1/0	0.2x32μmX1/0	0.6x45μmX1/0	0.8x45μmX1/0

» The above thicknesses are total thickness, including the thickness of resin.
The thickness of copper foil: H oz~2.0 oz. The thickness of aluminum plate: 0.15~1.5mm.
The thickness of copper base: 1.0oz~3.0oz.
» This material is Halogen-free, green and environmental-friendly material.
» Compliance with the specification of RoHS, compliance with the specification of REACH.

The scope of application

» Lighting：LED wall washer lighting, LED stage lighting, LED street lighting, LED indoor lighting, LED office lighting, narrow edge TV LED back light, automotive LED (EX:DRL)
» Electronic devices in automobile：Ignition device, voltage regulator, auto safety control system, AC transformer.
» Power supply：Switch regulator, switch, DC-DC transformer, DC-AC transformer, power supply, solar power base board.
» Electronic control：Relay, transistor base, switchboard, radiator, insulating heat conductive board in semiconductor, motor control device.
» Computer devices：Power supply device, soft disk driver, CPU.
» Communication：Automobile telephone, high frequency booster of mobile telephone, filter circuit, transmitting circuit.