



EM-MP / EM-MPC

Metal base material for Thermal Management

Thermal conductive, Halogen free and Reliable

EM-M series products are specially designed for wide-needed of thermal management application. These products are developed by EMC, known as one of the best CCL makers. EM-M series products provide good thermal conductivity, excellent reliability and green environment conformity. Thermal conductivity ,2 W/mk , Di-electric layer thickness, 55um/75um/100um/150um Single sided metal base and Mass-lam services All from EMC, a leading Halogen free CCL maker.

EM-MP → Metal Core Substrate
EM-MPC → Copper Clad Laminate

ED Copper Thickness : EM-MP H~3 oz
Dielectric layer thickness : 55um / 75um
100um / 150um
Metal type : AL 5052 H32 0.5mm~2.5mm
RA Copper C1100 0.5mm~1.5mm

EM-MP & EM-MPC basic property

Item	Test method	unit	Typical Value	
Thickness	Micro-section	um	100	
Thermal conductivity	ASTM E 1461	W/m-k	2.0	
	ASTM D 5470	W/m-k	1.3	
Thermal resistance	ASTM D 5470	°C/W	0.13	
Hi-pot withstand	IPC-TM-650 2.5.7	KV (AC)	5	
Tg (Glass transition Temp.)	IPC-TM-650 2.4.25	°C	120	
Td (Decomposition Temp.)	IPC-TM-650 2.4.40	°C	370	
CTE, Z-axis	< Tg	IPC-TM-650 2.5.24	ppm/°C	30
	> Tg	IPC-TM-650 2.5.24	ppm/°C	150
Water absorption	IPC-TM-650 2.6.2.1	%	0.17	
Peel strength (1 oz)	IPC-TM-650 2.4.8	-	8.0	
Permittivity at 1 GHz	IPC-TM-650 2.5.5.3	-	5.3	
Loss tangent at 1 GHz	IPC-TM-650 2.5.5.3	-	0.008	
Volume resistance	IPC-TM-650 2.5.17.1	Ω-cm	10 ¹⁵	
Surface resistance	IPC-TM-650 2.5.17.1	Ω	10 ¹³	

NOTE :

- The data in this document is only reference data , and do not represent a guarantee of the values for each property.
- POCO(Graphite) standard sample of CP be used for ASTM E 1461.