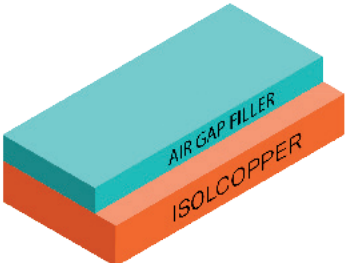
ISOLCOPPER + AIR GAP FILLER

STANDARD CONSTRUCTION

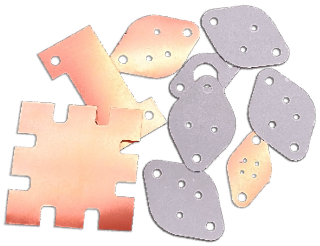


Air gap filler µm (mils)
50 (1,97)

Isolcopper thickness µm (mils)
80(3.1)

DESCRIPTION

- Aismalibar Isolcopper is an ultra-thin copper cladded with an ultra-thin dielectric layer dopped with high end mineral content.
- One or two sides with Aismalibar Thermal air gap filler, a unique technology that provides air gap filling capacity when TIM arrives to 35-40ºC
- High Tg : 180ºC (DSC)
- Low mounting pressure
- Silicon free
- No need of thermal grease
- Glass free
- Ultra-low thermal resistance
- Dielectric strength 2 kV
- CTE expansion XY 17 ppm
- Ideal for pick and place automation



UL Approved QMTS2
File: E47820
IPC-4101

RoHS 3 / REACH
Last updated compliance directive

Properties	ICU80 HTG 1GF50	UNITS	TOLERANCE	TEST METHOD
Thermal conductivity	3 (0,076)	W/mK (W/inK)	+/- 15%	ASTM D5470
Thermal Resistance	0,039	K/W	+/- 15%	ASTM D5470
Thermal impedance @10/30/50 psi	0,334(0,052)	Kcm2/W(Kin2/W)	+/- 15%	ASTM D5470
Nominal thickness (pressed)	130 (5,2)	µm (mils)	+/- 15µm (0,6mils)	-
Filler Type	Ceramic	-	-	-
Flammability / Flame Rating	V-0**	class	-	UL-94
Dielectric breakdown voltage, AC	≥2	kV	-	IPC TM 650 2.5.6.3
Density	4,5	g/cm^3	+/- 10%	ASTM D792
Continuous Working Temperature	130*	ºC	-	UL-MOT
Decomposition Temperature (Td) Initial	340*	ºC	-	IPC-TM 650-2.3.41
Decomposition Temperature (Td) 5% loss	420*	ºC	-	IPC-TM 650-2.3.41
Glass transition temperature of dielectric layer (by DSC)	180*	ºC	-	IPC-TM 650-2.4.24
CTE (x,y)	17*	p*pm/ºC	-	IPC-TM 650-2.4.41
CTE (z) <Tg	37*	ppm/ºC	-	IPC-TM 650-2.4.24
CTE (z) >Tg	172*	ppm/ºC	-	IPC-TM 650-2.4.24

STORAGE CONDITIONS

Keep storage climate conditions below 24ºC and 55% relative humidity. In the event of storing under very low warehouse temperatures give some time for the packed TIM's to stabilize to room temperature before opening. Keeping the above mentioned storage conditions and avoiding TIM's damage by humidity uptake will give a useful life of 6 months after production date.

(*) Value only of the Isolcopper
(**)Flammability rating is only valid when Isolcopper is cladded to an aluminium laminate of 0,8mm or higher and at the other side an FR4 with V-0 recognition with 0,8mm or higher.

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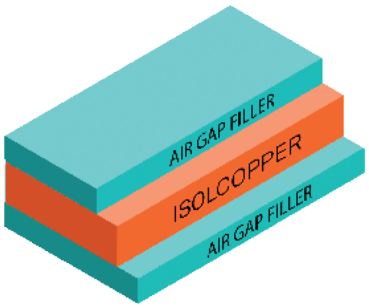
ISOLCOPPER + 2 AIR GAP FILLER

STANDARD CONSTRUCTION



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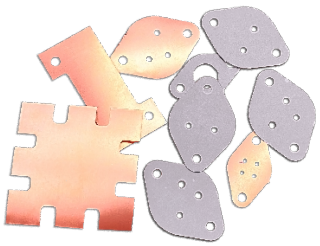

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Thermal conductivity	3 (0,076)	W/mK (W/inK)	+/- 15%	ASTM D5470
Thermal Resistance	0,059	K/W	+/- 15%	ASTM D5470
Thermal impedance @10/30/50 psi	0,501(0,078)	Kcm2/W(Kin2/W)	+/- 15%	ASTM D5470
Nominal thickness (pressed)	180 (7,09)	µm (mils)	+/- 15µm (0,6mils)	-
Filler Type	Ceramic	-	-	-
Flammability / Flame Rating	V-0**	class	-	UL-94
Dielectric breakdown voltage, AC	≥2	kV	-	IPC TM 650 2.5.6.3
Density	4	g/cm^3	+/- 10%	ASTM D792
Continuous Working Temperature	130*	ºC	-	UL-MOT
Decomposition Temperature (Td) Initial	340*	ºC	-	IPC-TM 650-2.3.41
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