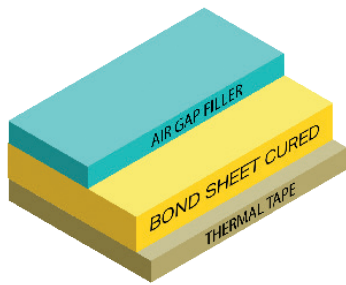


# BOND SHEET CURED + THERMAL TAPE + AIR GAP FILER

Data Sheet DS\_60

1/1

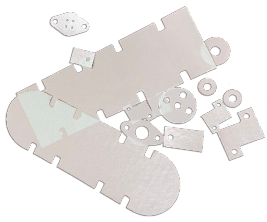
## STANDARD CONSTRUCTION



**Air gap filler  $\mu\text{m}$  (mils)**  
50 (1,97)

**Bonsheet cured  $\mu\text{m}$  (mils)**  
70 (2,8) / 100(3,9)

**Thermal tape  $\mu\text{m}$  (mils)**  
50 (1,97)



UL Approved QMST2  
File: E47820  
IPC-4101



RoHS 3 / REACH  
Last updated compliance directive



## DESCRIPTION

- Ultra-thin dielectric layer, high dielectric strength, high thermal conductivity and low thermal resistance.
- Consisting of a glass fabric base, enriched with mineral fillers.
- Thermal conductivity BSC 2.2 W/mK with dielectric strengths greater than 4 KV (70  $\mu\text{m}$  dielectric) or 6 KV (100  $\mu\text{m}$  dielectric).
- Low thermal resistance which efficiently dissipates the heat generated by the power components to the cooling elements.
- Silicon free.
- Ideal for pick and place automation
- Side A with self-adhesive pressure sensitive adhesive tape TT50 with excellent wettability and conformability to aluminum, copper and FR4 surfaces.
- Side B with Aismalibar Thermal air gap filler, a unique technology that provides air gap filling capacity when TIM arrives to 35-40°C

Properties	BSC70 1TT50 1GF50	BSC100 1TT50 1GF50	UNITS	TOLERANCE	TEST METHOD
Thermal conductivity	1,5 (0,038)*	1,5 (0,038 )*	W/mK (W/inK)	+/- 15%	ASTM D5470
Thermal Resistance	0,119	0,136	K/W	+/- 15%	ASTM D5470
Thermal impedance @10/30/50 psi	0,158 (1,017)	1,167 (0,181)	Kcm <sup>2</sup> /W (Kin <sup>2</sup> / W)	+/- 15%	ASTM D5470
Nominal thickness (pressed)	170 (6,69)	200 (7,87)	$\mu\text{m}$ (mils)	+/- 15 $\mu\text{m}$ (0,6mils)	-
Reinforcement Carrier on BSC	Glass	Glass			-
Flammability / Flame Rating	V-0**	V-0**	class	-	UL-94
Dielectric breakdown voltage, AC	$\geq 4$	$\geq 6$	kV	-	IPC TM 650 2.5.6.3
Weight Loss, aplica ala muestra total	<0,5	<0,5	%		ASTM E595
Density	2,6	2,6	g/cm <sup>3</sup>	+/- 10%	ASTM D792
Initial Tack (Peel adhesion)	4,3***	4,3***	N/cm		ASTM D3330
Area weight	165	225	g/m <sup>2</sup>	+/- 20g/m <sup>2</sup>	-
Maximum operating temperature	130*	130*	°C		UL-MOT
Volume Resistivity (los tenemos H Tg)	1.79E+14*	1.79E+14*	Ohm-cm	-	ASTM D257
Surface Resistivity (los tenemos H Tg)	2.07E+13*	2.07E+13*	Ohm		ASTM D257
Decomposition Temperature (Td) Initial	205*	205*	°C	-	IPC-TM 650-2.3.41
Decomposition Temperature (Td) 5% loss	327*	327*	°C	-	IPC-TM 650-2.3.41
Glass transition temperature of dielectric layer (by DSC)	120*	120*	°C	-	IPC-TM 650-2.4.24
Permittivity	6,7 (0,170)*	6,7 (0,170)*	pF/m (pF/in)	-	

## STORAGE CONDITIONS

Keep storage climate conditions below 24°C 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 Bond Sheet Cured.

(\*\*) Flammability rating is only valid when BSC70/100 or BSC80 HTG with one side TT50 and one side GF30 is clad 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.

(\*\*\*) Only on thermal tape side.