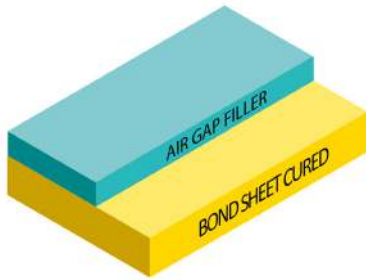


# BOND SHEET CURED HTG + AIR GAP FILLER

Data Sheet DS\_66

1/2

## STANDARD CONSTRUCTION



**Air gap filler  $\mu\text{m}$  (mils)**  
50 / (1,9), 70 / (2,7)

**Bonsheet cured  $\mu\text{m}$  (mils)**  
80 / (3.1)



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 3.2 W/mK with dielectric strengths greater than 4 KV (80  $\mu\text{m}$  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
- One or two sides with Aismalibar Thermal air gap filler, a unique technology that provides air gap filling capacity when TIM arrives to 35-40°C
- Low mounting pressure
- No need of thermal grease
- Offered in cut two size
- Dry surface , non-tacky
- No need to peel a liner
- ideal for pick and place automation
- Very low CTE expansion

Properties	BSC80 HTG 1GF50	UNITS	TOLERANCE	TEST METHOD
Thermal conductivity	3 (0,076)*	W/mK (W/inK)	± 15%	ASTM D5470
Thermal Resistance	0,051	K/W	± 15%	ASTM D5470
Thermal impedance @10/30/50 psi	0,433	Kcm <sup>2</sup> /W	± 15%	ASTM D5470
Nominal thickness (pressed)	130 (5,1)	$\mu\text{m}$ (mils)	± 15 $\mu\text{m}$ (0,6mils)	-
Reinforcement Carrier on BSC HTg	Glass fiber			-
Flammability / Flame Rating	V-0**	class	-	UL-94
Dielectric breakdown voltage, AC	≥4	kV	-	IPC TM 650 2.5.6.3
Weight Loss	< 0,5	%		ASTM E595
Density	2,6	g/cm <sup>3</sup>	± 10%	ASTM D792
Area weight	195	g/m <sup>2</sup>	± 20g/m <sup>2</sup>	-
Continuous Working Temperature	130*	°C	-	UL-MOT
Volume Resistivity (los tenemos H Tg)	1.82E+14*	Ohm-cm	-	ASTM D257
Surface Resistivity (los tenemos H Tg)	2.14E+13*	Ohm		ASTM D257
Decomposition Temperature (Td) Initial	340*	°C	-	IPC-TM 650-2.3.41
Decomposition Temperature (Td) 5% loss	420*	°C	-	IPC-TM 650-2.3.41
Glass transition temperature of dielectric layer (by DSC)	180*	°C	-	IPC-TM 650-2.4.24
Permittivity	6,7 (0,170) *	pF/m (pF/in)	-	
CTE (x,y)	14-15*	ppm/°C	-	IPC-TM 650-2.4.41
CTE (z) <Tg	37*	ppm/°C	-	IPC-TM 650-2.4.24
CTE (z) >Tg	172*	ppm/°C	-	IPC-TM 650-2.4.24
Z-axis Expansion (50-250°C)	1.8 (77ppm)*	%	-	IPC-TM 650-2.4.24

## 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.

