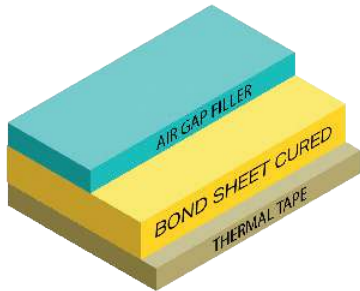


STANDARD CONSTRUCTION



Air gap filler μm (mils)
50 (1,97)

Bonsheet cured μm (mils)
80 (3.15)

Thermal tape μm (mils)
50 (1,97)



UL UL Approved QMST2
File: E47820
IPC-4101

RoHS 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 μm dielectric).
- Low thermal resistance which efficiently dissipates the heat generated by the power components to the cooling elements.
- Silicon free.
- 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
- Low mounting pressure
- No need of thermal grease
- Offered in cut two size
- Very Low CTE Expansion

| Properties | BSC80 HTG 1TT50 1GF50 | UNITS | TOLERANCE | TEST METHOD |
|---|--------------------------|---|----------------------------------|--------------------|
| Thermal conductivity | 2,2 (0,056) | W/mK (W/inK) | \pm 15% | ASTM D5470 |
| Thermal Resistance | 0,099 | K/W | \pm 15% | ASTM D5470 |
| Thermal impedance @10/30/50 psi | 0,850 (0,132) | Kcm ² / W (Kin ² / W) | \pm 15% | ASTM D5470 |
| Nominal thickness (pressed) | 180 (7,09) | μm (mils) | \pm 15 μm (0,6mils) | - |
| Reinforcement Carrier | Glass | | | - |
| Flammability / Flame Rating | V-0** | class | - | UL-94 |
| Dielectric breakdown voltage, AC | \geq 4 | kV | - | IPC TM 650 2.5.6.3 |
| Weight Loss | <0,5 | % | | ASTM E595 |
| Density | 2,6 | g/cm ³ | \pm 10% | ASTM D792 |
| Initial Tack (Peel adhesion) TT50 side | 4,3*** | N/cm | | ASTM D3330 |
| Area weight | 165 | g/m ² | \pm 20g/m ² | - |
| Maximum operating temperature | 130* | °C | | UL-MOT |
| Volume Resistivity (los tenemos H Tg) | 1.79E+14* | Ohm-cm | - | ASTM D257 |
| Surface Resistivity (los tenemos H Tg) | 2.07E+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.