

Brady Tsoft3ST-60 Thermally Conductive Material Gap Filler

TDS No. BT-8814
Effective Date: 08/03/2011

Description:

GENERAL

Colour: Green
Binder: Silicone
Filler: Aluminium Oxide

Soft Gap Filler is a soft material designed to conduct heat away from uneven surfaces. The conformability allows for intimate contact over rough surfaces and eliminates air.

APPLICATION

Tsoft® materials are thermally conductive insulators typically mounted between a transistor and a heat sink offering low thermal resistance as well as electrical insulation. Tsoft® materials do not require thermal grease. Using Tsoft® materials can lead to dramatic production cost reductions and improved product uniformity eliminating messy grease mica application, contamination, mica cracking, silicone migration and drying out.

COMPLIANCE

BT-8814 is halogen-free in accordance to definition in IEC61249-2-21 and IPC-4101B, tested using IPC-TM-650.
BT-8814 is RoHS compliant in accordance to the EU Directive 2002/95/EC and its amendments.
BT-8814 is QMFZ2 recognized and V-0 rated as per UL94 standard. Refer to File# E316839 under *Certifications* at www.ul.com

Details:

PHYSICAL PROPERTIES	TEST METHOD	TYPICAL RESULTS
Color	-	Green
Support layer	-	Nil
Format	-	Both Side Tacky
Thickness	ASTM D374	60 mil (1.5 mm)
Specific Gravity	ASTM D792	2.43 g/cm ³
Hardness (Shore 00)	ASTM D2240	57
Low Molecular Weight Siloxane Level		
· Static Headspace Outgassing Method	· EPA 5021	· < 10 ppm
· Solvent Extraction by GC-MS	· EPA 8270D	· <1000 ppm
Percent of Deflection		
· @ 10psi	LAB-STM-A4E	· 15%
· @ 50psi		· 40%
· @ 100psi		· 60%
Tensile Strength	ASTM D412	0.23 MPa
ELECTRICAL PROPERTIES		
Dielectric Constant		
· 1KHz	ASTM D150	· 5.15
· 1MHz		· 4.72
Dielectric Strength	ASTM D149 (Type 1)	6 KVolts
Dissipation Factor		
· 1KHz	ASTM D150	· 0.029
· 1MHz		· 0.007
Volume Resistivity	ASTM D257	1.10E ¹² ohm.cm
THERMAL PROPERTIES		

Thermal Conductivity	ASTM E1530 (modified ASTM D5470)	2.47 W/mK
Thermal Impedance	ASTM E1530 (modified ASTM D5470)	1.10 C-in ² /Watt
Continuous Use Temperature	Modified UL746B	-40°C to 150°C
Weight Loss, 24 hrs@200 C	LAB-STM-A8A	< 1%

Available Forms:

Tsoft® thermal management materials are available in Sheet Form, Standard and Special Configurations.

Trademarks:

ASTM: American Society for Testing and Materials (U.S.A.)

UL: Underwriters Laboratories Inc. (U.S.A.)

Note: All values shown are averages and should not be used for specification purposes.

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