

Brady Tsoft3S-20 Thermally Conductive Material Gap Filler

TDS No. BT-8620
Effective Date: 08/03/2011

Description:

GENERAL

Colour: Grey with pink backing
Binder: Silicone
Filler: Aluminium Oxide and Boron Nitride
Reinforcement: Fiberglass

TSOFT3S-20 is a soft material designed to conduct heat away from uneven surfaces. It is firmer and more thermally conductive than our TSOFT series. 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.

Some of the common applications would include:

- Computer system and telecommunication peripherals
- Power conversion
- Transfer heat from ICs/PCBA/motor to heat sink, chassis or heat spreader
- Automotive electronics

REGULATORY/AGENCY APPROVALS

UL: BT-8620 (Tsoft3S-20) is QMFZ2 recognised and V-0 rated as per UL94 standard. See UL file E316839 for specific details.
RoHS: BT-8620 (Tsoft3S-20) is RoHS compliant in accordance to the EU Directive 2002/95/EC and its amendments.

Details:

PHYSICAL PROPERTIES	TEST METHOD	TYPICAL RESULTS
Thickness	ASTM D374	20mil (0.5mm)
Specific Gravity	ASTM D792	2.2 g/cm ³
Hardness (Shore OO)	ASTM D2240	60
ELECTRICAL PROPERTIES		
Dielectric Constant, 60Hz	ASTM D150	5.1
Volume Resistivity	ASTM D257	1.0 E+14 Ohm.cm
Dissipation factor, 60Hz	ASTM D150	0.08
Dielectric Strength	ASTM D149 type1	7KVolts
THERMAL PROPERTIES		
Thermal Conductivity @10psi	ASTM D5470	2.0 W/mK
Continuous Use Temperature	MIL-1-49456A	-60C to 200C
Weight Loss, 24hrs@200C	-	<1%
Thermal Impedance @10psi	ASTM D5470	0.75°C.In ² /Watt

Available Forms:

Tsoft® thermal management materials are available in roll form, 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.

Test data and test results contained in this document are for general information only and shall not be relied upon by Brady customers for designs and specifications, or be relied on as meeting specified performance criteria. Customers desiring to develop specifications or performance criteria for specific product applications should contact Brady for further information.

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