

**Brady Tsoft-80 Thermally Conductive Material Gap Filler**

TDS No. BT-8604  
 Effective Date: 07/04/2010

**Description:**

**GENERAL**

- Colour:** Ice blue with gray backing
- Binder:** Silicone
- Filler:** Aluminium Oxide
- Liner:** Clear PE
- Reinforcement:** Fiberglass polyester

TSOFT-80 is a soft material designed to conduct heat away from uneven surfaces. The conformability allows for intimate contact over rough surfaces and eliminates air. Tsoft® materials are available in various thicknesses.

**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.

**REGULATORY/AGENCY APPROVALS**

**UL:** BT-8604 (Tsoft-80) is QMFZ2 recognised and V-0 rated as per UL94 standard. See UL file E316839 for specific details.  
**RoHS:** BT-8604 (Tsoft-80) 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	80mil (2mm)
Specific Gravity	ASTM D792	2.3 g/cm <sup>3</sup>
Hardness (Shore A)	ASTM D2240	15
Elongation, minimum	ASTM D828	3%
<b>ELECTRICAL PROPERTIES</b>		
Dielectric Strength	ASTM D149 (Type 1)	10 KVolts
Volume Resistivity	ASTM D257	2.5 E+13 Ohm.cm
Dielectric Constant, 60Hz	ASTM D150	5.5
Dissipation Factor, 60Hz	ASTM D150	0.0039
<b>THERMAL PROPERTIES</b>		
Thermal Conductivity @ 10psi	ASTM E1530 (modified ASTM D5470)	0.99 W/mK
Thermal Impedance @ 10psi	ASTM D5470	3.23 C-in <sup>2</sup> /Watt
Continuous Use Temperature	MIL-I-49546A	-60°C to 200°C
Weight Loss, 24 hrs @ 200 C	-	< 1%

**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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