

**Brady Tsoft-20 Thermally Conductive Material Gap Filler**

TDS No. BT-8600  
 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-20 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-8600 (Tsoft-20) is QMFZ2 recognised and V-0 rated as per UL94 standard. See UL file E316839 for specific details.  
**RoHS:** BT-8600 (Tsoft-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	20 mil (0.5mm)
Specific Gravity	ASTM D792	2.3 g/cm <sup>3</sup>
Hardness (Shore A)	ASTM D2240	15
Elongation	ASTM D828	3%
<b>ELECTRICAL PROPERTIES</b>		
Dielectric Constant, 60Hz	ASTM D150	5.5
Volume Resistivity	ASTM D257	2.5 E +13 ohm-cm
Dissipation Factor, 100Hz	ASTM D150	0.0039
Dielectric Strength	ASTM D149 (Type 1)	4000V
<b>THERMAL PROPERTIES</b>		
Thermal Conductivity @ 10psi	ASTM E1530 (modified ASTM D5470)	0.93 W/mK @ 10psi
Continuous Use Temperature	MIL-I-49546A	-60°C to 200°C
Weight Loss, 24 hrs @ 200 C	-	< 1%
Thermal Impedance @ 10psi	ASTM D5470	0.86 °CIn2/Watt @ 10psi

**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.

Product compliance information is based upon information provided by suppliers of the raw materials used by Brady to manufacture this product or based on results of testing using recognized analytical methods performed by a third party, independent laboratory. As such, Brady makes no independent representations or warranties, express or implied, and assumes no liability in connection with the use of this information.

## **WARRANTY**

Brady products are sold with the understanding that the buyers will test them in actual use and determine for themselves their adaptability to their intended uses. Brady warrants to the buyers that its products are free from defects in material and workmanship, but limits its obligation under this warranty to replacement of the product shown to Brady's satisfaction to have been defective at the time Brady sold it. This warranty does not extend to any persons obtaining the product from the buyers. This warranty is in lieu of any other warranty, express or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose, and of any other obligations or liability on Brady's part. Under no circumstances will Brady be liable for any loss, damage, expense, or consequential damages of any kind arising in connection with the use, or inability to use, Brady's products.

Copyright 2016 Brady Corporation Asia Pte. Ltd. | All Rights Reserved  
Material may not be reproduced or distributed in any form without written permission.

---

Brady Asia | 1 Kaki Bukit Crescent | Singapore 416236 | Singapore | Tel: 65 6477.7261 | Fax: 65 6748.7248