

Brady T1000-9 Thermally Conductive Material Tsoft® Elastomeric Thermal Pad

TDS No. BT-8654
Effective Date: 08/03/2011

Description:

GENERAL

Tsoft® T1000-9 is a fiberglass reinforced, boron nitride filled silicone elastomer

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:

- Power conversion
- Automotive electronics
- Consumable electronics

COMPLIANCE

BT-8654 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
Colour	-	Pink
Binder	-	Silicone elastomer
Reinforcement	-	Fiberglass
Filler	-	Boron nitride
Thickness	ASTM D374	9 mil
Specific Gravity	ASTM D792	1.5 g/cm ³
Hardness (Shore A)	ASTM D2240	84
Tensile Strength	ASTM D828	11000 psi (76 N/mm ²)
Elongation	ASTM D828	2-4 %
Breaking Strength	ASTM D828	18 KN/m
Cut-Thru Resistance	-	0.73 KN
ELECTRICAL PROPERTIES		
Dielectric Strength	ASTM D149	4500 volts
Volume Resistivity	ASTM D257	6 x 10 ¹⁵ ohm-cm
Dielectric Constant	ASTM D257	<ul style="list-style-type: none"> • 2.25 • 2.2
<ul style="list-style-type: none"> • 60 Hz • 1KHz 		<ul style="list-style-type: none"> • 0.0015 • 0.0112
Dissipation Factor	ASTM D257	<ul style="list-style-type: none"> • 0.0015 • 0.0112
THERMAL PROPERTIES		
Thermal Impedance	ASTM D5470	0.30 C-in ² /watt
Thermal Conductivity	ASTM D5470	1.2 W/mK
Continuous Use Temperature	MIL-I-49546A	-60°C to +180°C
Weight Loss, 24hr @200°C	Modified UL746B	< 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.

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