

## TSoft3STF 10

### BT-8827 Thermally Conductive Material Transtherm® Gap Filler

**Description:**

**GENERAL**

Tsoft3STF is a material designed to conduct heat away from uneven surfaces. The conformability allows intimate contact over rough surfaces and eliminates air.

*Note: Also known as BT-8827 by Brady Corporation.*

**APPLICATION**

*Transtherm®* materials are thermally conductive insulators typically mounted between a transistor and a heat sink offering low thermal resistance as well as electrical insulation. *Transtherm®* materials do not require thermal grease. Using *Transtherm®* materials can lead to dramatic production cost reductions and improve product uniformity.

**COMPLIANCE**

BT-8827 is halogen-free in accordance to definition in IEC61249-2-21 and IPC-4101B, tested using IPC-TM-650.

BT-8827 is RoHS compliant in accordance to the EU Directive 2002/95/EC and its amendments.

**Details:**

PHYSICAL PROPERTIES	TEST METHOD	TYPICAL RESULTS
Colour	-	Light green
Binder	-	Silicone
Liner	-	Clear PET
Reinforcement	-	Fiberglass cloth
Thickness	ASTM D374	10 mil
Specific Gravity	ASTM D792	2.43 g/cm <sup>3</sup>
Hardness (Shore 00)	ASTM D2240	60*
Low Molecular Weight Siloxane Level <ul style="list-style-type: none"> <li>• Static Headspace Outgassing Method</li> <li>• Solvent Extraction by GC-MS</li> </ul>	<ul style="list-style-type: none"> <li>• EPA 5021</li> <li>• EPA 8270D</li> </ul>	<ul style="list-style-type: none"> <li>• &lt; 0.1 ppm</li> <li>• &lt; 600 ppm</li> </ul>
Percent of Deflection <ul style="list-style-type: none"> <li>• @ 10psi</li> <li>• @ 50psi</li> <li>• @ 100psi</li> </ul>	LAB-STM-A4E	<ul style="list-style-type: none"> <li>• 15%</li> <li>• 40%</li> <li>• 65%</li> </ul>

Young's Modulus	ASTM D412	200MPa
<b>ELECTRICAL PROPERTIES</b>		
Dielectric Constant • 1KHz • 1MHz	ASTM D150	• 5.15 • 4.72
Dissipation Factor • 1KHz • 1MHz	ASTM D150	• 0.029 • 0.007
Volume Resistivity	ASTM D257	4.E10 <sup>2</sup> ohm.cm
Dielectric Strength	ASTM D149 (Type 1)	>4.5 KVolts
<b>THERMAL PROPERTIES</b>		
Thermal Conductivity	ASTM E1530 (modified ASTM D5470)	- 1.80 W/mK
Thermal Impedance	ASTM E1530 (modified ASTM D5470)	- 0.41 in <sup>2</sup> °C/W @ 10psi - 0.39 in <sup>2</sup> °C/W @ 30psi
Continuous Use Temperature	Modified UL746B	-40°C to 150°C
Weight Loss, 24 hrs@200 C	LAB-STM-A8A	< 1%
Flammability	UL 94	V-0
Shelf life		One year

\* Hardness of gel only

#### Available Forms:

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

#### Disclaimer:

Test data and test results contained in this document are only for general information purpose. They 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.

#### 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 2012 Brady Worldwide, Inc., All Rights Reserved  
Material may not be reproduced or distributed in any form without permission

www.foxtronic.de