

Tsoft3STF 20

BT-8828 Thermally Conductive Material Transtherm™ Gap Filler

Description:

GENERAL

Soft Gap Filler is a soft material designed to conduct heat away from uneven surfaces. The conformability allows for intimate contact over rough surfaces and eliminates air.

Note: Also known as BT-8828 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 by eliminating messy grease mica application, contamination, mica cracking, silicone migration and drying out.

COMPLIANCE

BT-8828 is halogen-free in accordance to definition in IEC61249-2-21 and IPC-4101B, tested using IPC-TM-650.

BT-8828 is RoHS compliant in accordance to the EU Directive 2002/95/EC and its amendments.

Details:

| PHYSICAL PROPERTIES | TEST METHOD | TYPICAL RESULTS |
|---|---|--|
| Color | - | Green |
| Binder | - | Silicone |
| Liner | - | Clear PET |
| Reinforcement | | Fiberglass cloth |
| Thickness | ASTM D374 | 20 mil |
| Specific Gravity | ASTM D792 | 2.43 g/cm ³ |
| Hardness (Shore 00) | ASTM D2240 | 60* |
| Low Molecular Weight Siloxane Level <ul style="list-style-type: none"> • Static Headspace Outgassing Method • Solvent Extraction by GC-MS | <ul style="list-style-type: none"> • EPA 5021 • EPA 8270D | <ul style="list-style-type: none"> • < 0.1 ppm • < 600 ppm |
| Percent of Deflection <ul style="list-style-type: none"> • @ 10psi • @ 50psi • @ 100psi | LAB-STM-A4E | <ul style="list-style-type: none"> • 10% • 20% • 40% |
| Young's Modulus | ASTM D412 | 200MPa |
| | | |

| ELECTRICAL PROPERTIES | | |
|---|----------------------------------|--|
| 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 ² ohm.cm |
| Dielectric Strength | ASTM D149 (Type 1) | 6 KVolts |
| THERMAL PROPERTIES | | |
| Thermal Conductivity | ASTM E1530 (modified ASTM D5470) | - 1.80 W/mK @ 30psi |
| Thermal Impedance | ASTM E1530 (modified ASTM D5470) | - 0.73 in ² °C/W @ 10psi - 0.68 in ² °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.

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