Laird TECHNOLOGIES

Innovative **Technology** for a **Connected** World

# Tflex™ 300 Series
## Thermal Gap Filler


### UNIQUE SILICONE GEL OFFERS COMPLIANCY, THERMAL RESISTANCE

Tflex™ 300, at pressures of 50psi, will deflect to over 50% the original thickness. This high rate of compliancy allows the material to "totally blanket" the component, enhancing thermal transfer. The material has a very low compression set enabling the pad to be reused many times.

Tflex™ 300, in achieving its stellar compliancy, does not sacrifice thermal performance. With a thermal conductivity of 1.2 W/mK, low thermal resistances can be achieved at low pressures.

Tflex™ 300-H is offered with a hard, metallized liner option for easy handling and improved rework. The metallized liner's lower coefficient of friction also allows for easy assembly of parts that must slide together, such as a card into a chassis.

Tflex™ 300-TG is offered with a cut-through resistant Tgard™ silicone liner. The TG liner offers a guaranteed dielectric barrier, and easier part handling for mass production.

### FEATURES AND BENEFITS

- Extreme compliancy allows material to "totally blanket" component(s)
- Thermal conductivity of 1.2 W/mK
- Available in thicknesses from 0.020" - 0.200" (.5mm – 5.0mm)
- Low compression set enables the pad to be reused many times

### APPLICATIONS

- Notebook and desktop computers
- Telecommunication hardware
- Flat panel displays
- Memory modules
- Power conversion equipment
- Set top box
- Lighting ballast
- Automotive electronics
- LED lighting
- Handheld electronics
- Optical disk drives
- Vibration dampening

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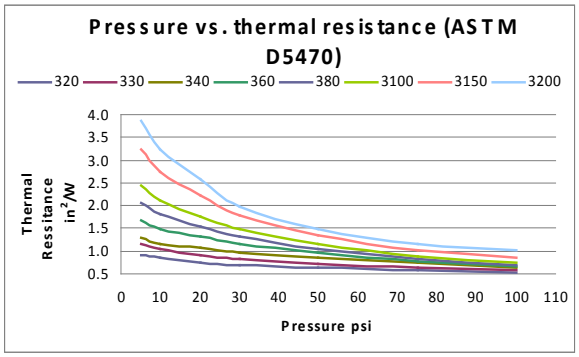
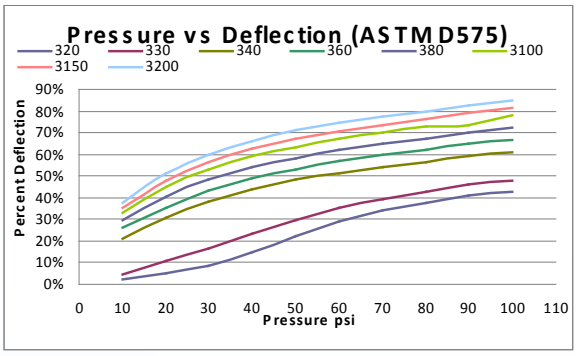
## TFLEX™ 300 TYPICAL PROPERTIES

| | TFLEX™ 300 | TEST METHOD |
|---|---|---|
| Construction | Filled silicone elastomer | NA |
| Color | Light green | Visual |
| Thermal Conductivity | 1.2 W/mK | ASTM D5470 |
| Hardness (Shore 00) | 27 (at 3 second delay) | ASTM D2240 |
| Density | 1.78 g/cc | Helium Pyncometer |
| Thickness Range | 0.020" - .200" (0.5 - 5.0mm)* | |
| Thickness Tolerance | ±10% | |
| UL Flammability Rating | 94 V0 | UL |
| Temperature Range | -40°C to 160°C | NA |
| Volume Resistivity | 10 ^13 ohm-cm | ASTEM D257 |
| Outgassing TML | 0.56% | ASTM E595 |
| Outgassing CVCM | 0.10% | ASTM E595 |
| Coefficient Thermal Expansion (CTE) | 600 ppm/C | IPC-TM-650 2.4.24 |




## STANDARD THICKNESSES

0.020 to 0.200-inch (0.5 to 5.0mm)*
0.020 to 0.200-inch thick material available in 0.010-inch (0.25mm) increments
0.250-inch (6.4 mm) also available with TG liner option only.
*Inquire about availability of material and options above 0.200-inches

## OPTIONS

Tgard™ "TG" dielectric barrier available to aid in handling and PET dielectric "H" liner available for applications where easy slide assembly is desirable

## MATERIAL NAME AND THICKNESS

Tflex™ indicates elastomeric gap filler product line
3xxx indicates high recovery '3 series' 1.2 W/mK material
-DC1 designates proprietary tack eliminated coating
-TG indicates Tgard™ liner option
-H indicates hard PET liner option

## EXAMPLES

Tflex™ 3120 = standard 0.120-inch thick Tflex™ 300 material
Tflex™ 3120DC1 = 0.120-inch thick material with DC1 coating
Tflex™ 3120TG = 0.120-inch thick material with Tgard™ liner
Tflex™ 3120H = 0.120-inch thick material with hard PET liner