

Product Description

Tflex™ UT20000 is a specially formulated ultra-thin gap filler thermal interface material designed for thin interfaces that offers excellent thermal performance and high compliancy. It is designed without embedded reinforcing fiberglass to minimize contact resistance, yet still allows easy material handling and durability during assembly.

Tflex™ UT20000 provides excellent interfacing and its ability to wet out mating surfaces allows for efficient transfer of heat away from components. It is an ideal choice for low-pressure applications and optimum solution in handheld devices with thin interface gap and limited space requirements.

Tflex™ UT20000 is electrically non-conductive, stable from -50°C thru 200°C and offered in thicknesses that range from 0.008" (200 µm) up to 0.040" (1000 µm). A polyimide film option is available for increased electrical resistance and a tear resistant top surface.

FEATURES AND BENEFITS

- Thermal Conductivity of 3.0 W/mK
- No fiberglass carrier to minimize thermal resistance, yet still easy to handle
- Excellent surface wetting for low contact resistance
- Unique formulation minimizes thermal resistance at low mounting forces
- Environmentally friendly solution that meets regulatory requirements including RoHS and REACH

SPECIFICATIONS

TYPICAL PROPERTIES	VALUE	TEST METHOD
Construction & Composition	Ceramic filled silicone sheet	N/A
Color	Grey	Visual
Thickness Range	200 µm (0.008")- 1000 µm (0.040")	N/A
Thermal Conductivity (W/mK)	3.0	Hot Disk
Density (g/cc)	3.2	Helium Pycnometer
Hardness (Shore 00)*	83.3 (200-375) µm 56.4* (400-1000) µm	ASTM D2240
Outgassing TML (weight %)	0.34%	ASTM E595
Outgassing CVCN (weight %)	0.09%	ASTM E595
Temperature Range	-50°C to 200°C	Laird Test Method
Rth@ 200 µm, 10 psi, 50° C	0.25°C-in2/W	ASTM D5470
Dielectric Constant @ 1MHz	5.87	ASTM D150
UL Flammability Rating	V-0	UL 94
Volume Resistivity	2.2 x 10 ¹⁵ ohm-cm	ASTM D257

* hardness for the PI option

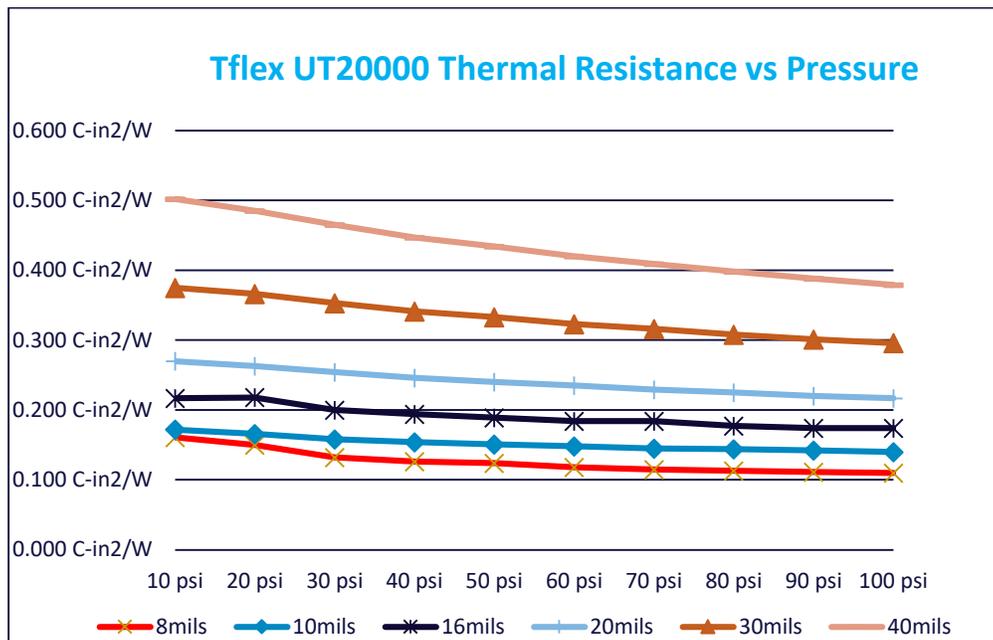
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www.laird.com





AVAILABILITY

STANDARD THICKNESSES

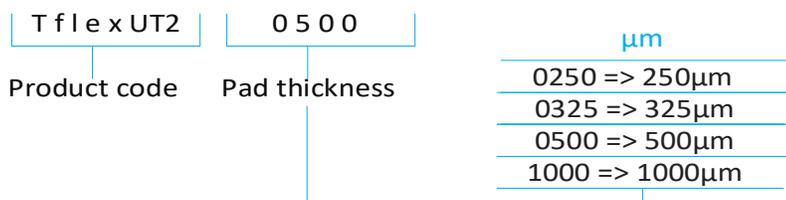
- 0.008" (200 μm) up to 0.020" (500 μm) thick material available in 25 μm increments
- Also available in 0.025" (625μm), 0.030" (750 μm), 0.035" (875μm), 0.040" (1000 μm)
- Available in standard sheet sizes of 18" x 18" and 9" x 9" or custom die cut parts. Custom die cut parts on a roll available for 200 μm (0.008") thru 375 μm (0.015")

OPTIONS

- Polyimide Film available on 10 mil or higher thicknesses of Tflex UT20000 to enhance the electrical resistance and provide a smooth surface

PART NUMBER SYSTEM

Tflex™ indicates Laird elastomeric thermal gap filler product line. UT20000 indicates Tflex™ UT20000 product line with thickness in microns



EXAMPLES:

- Tflex™ UT20200 = 200 μm (0.008") thick Tflex™ UT20000 material
- Tflex™ UT20500 = 500 μm (0.020") thick Tflex™ UT20000 material
- Tflex™ UT20250PI-1 = 250 μm thick Tflex™ UT20000 material with one mil (25 μm) PI film
- Tflex™ UT20250PI-2 = 250 μm thick Tflex™ UT20000 material with two mil (50 μm) PI film

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