

Tflex™ HD700 Series

Thermal Gap Filler



PRODUCT DESCRIPTION

Tflex™ HD700 thermal gap filler combines 5 W/mK thermal conductivity with superior pressure versus deflection characteristics. The combination will allow minimal stress on components while also yielding low thermal resistance. As a result, less mechanical and thermal stresses will be experienced within your device.

Tflex™ HD700PI can be provided with an integrated polyimide film on one side. This liner provides numerous application benefits like electrical isolation, placement ease during assembly, and tear resistance for applications that require shear.

Tflex™ HD700 and Tflex™ HD700PI are available in thickness from 0.5mm (0.020”) to 5mm (0.200”). The standard material Tflex™ HD700 material is a light pink color, but we do have the option to provide this in a grey color if a neutral color is desired (Tflex HD700,GR).

Laird can provide material to meet your production needs in any region through our local production facilities. Please contact your local Laird sales or field engineering contact for samples or questions.

FEATURES AND BENEFITS

- 5.0 W/mK thermal conductivity
- Low pressure versus deflection
- Excellent surface wetting for low contact resistance
- Minimizes board and component stress
- Option for additional electrical isolation and tear resistance
- Environmentally friendly solution that meets regulatory requirements including RoHS and REACH

SPECIFICATIONS

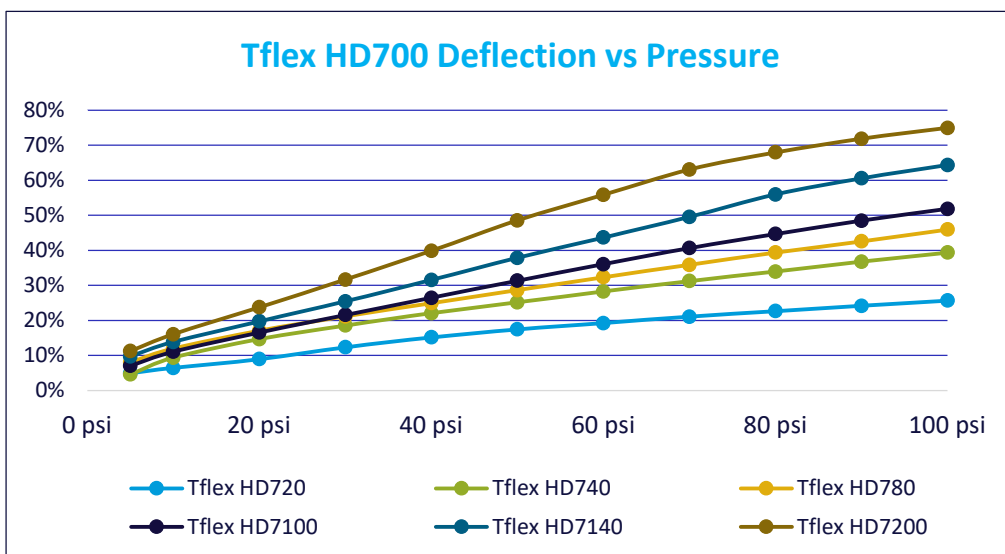
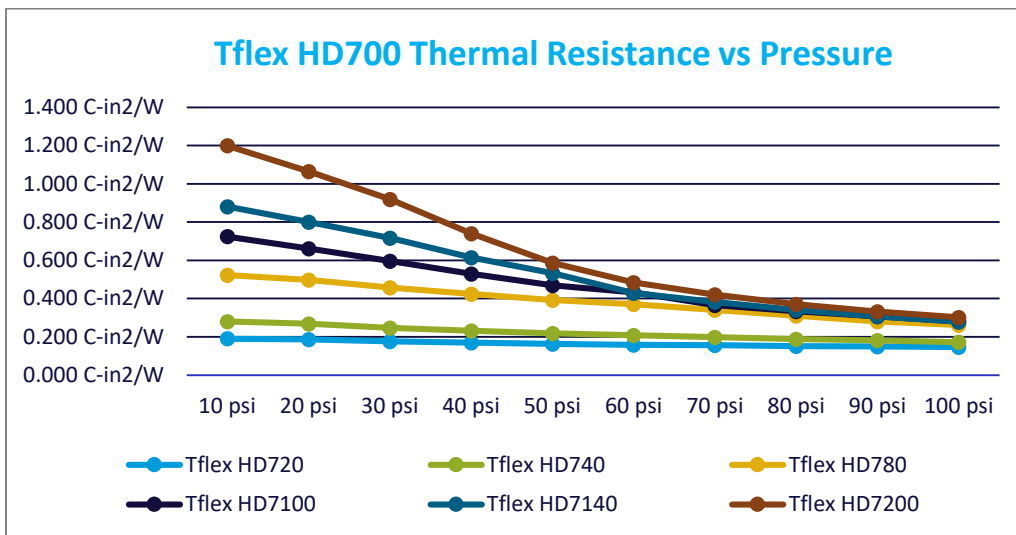
TYPICAL PROPERTIES	VALUE	TEST METHOD
Construction & Composition	Ceramic filled silicone sheet	N/A
Color	Pink (*Option for Dark Grey)	Visual
Thickness Range	0.50mm (0.020”) 5.0mm (0.200”)	N/A
Thickness Tolerance	+/- 10%	N/A
Thermal Conductivity (W/mK)	5.0	ASTM D5470
Density (g/cc)	3.3	Helium Pycnometer
Hardness (Shore 00)	54	ASTM D2240
Outgassing TML (weight %)	0.23	ASTM E595
Outgassing CVCN (weight %)	0.07	ASTM E595
Temperature Range	-50°C to 200°C	Laird Test Method
Rth@ 40 mils, 10 psi	0.287°C-in ² /W	ASTM D5470 (Modified)
Dielectric Constant @ 1 MHz	5.01	ASTM D150
UL Flammability Rating	V-0	UL 94
Volume Resistivity	1.4x 10 ¹⁴ ohm-cm	ASTM D257

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AVAILABILITY

STANDARD THICKNESSES

- 0.5mm (0.020") to 5.0mm (0.200") thick material available in 0.25mm (0.010") increments
- Available in standard sheet sizes of 18" x 18" and 9" x 9" or custom die cut parts

OPTIONS

- DC1 – eliminate tack from one side
- PI – polyimide liner added to one side
- GR - Dark Grey Color

PART NUMBER SYSTEM

Tflex™ indicates Laird elastomeric thermal gap filler product line. HD7xxx indicates Tflex HD700 product line with thickness in mils (0.001").

- Tflex™ HD740 = 0.040" thick Tflex™ HD700 material
- Tflex™ HD7100,DC1 = 0.10" thick Tflex™ HD700 material with DC1 option
- Tflex™ HD7100PI = 0.10" thick Tflex™ HD700 material with PI liner
- Tflex™ HD7120,GR = 0.120" thick Tflex™ HD700 material in dark grey color