

Material Features:

- Low Density
- Low thermal resistance
- Good thermal stability

Applications

- Graphic Processors
- Base stations
- Microprocessors
- Data Centers

Storage Conditions:

- Store in dark environment
- Storage Temperature: $\leq 30^{\circ}\text{C}$
- Storage Humidity: $\leq 70\%$

Shelf Life:

- Stored at storage conditions:
Two years

Short Term Operating Temperature:

- 500°F (260°C) for 30 minutes.

How to Order Product to Size:

WWWW = Width in inches (ex $5.00'' = 0500$)
LLLL = Length in inches (ex $10.00'' = 1000$)
TTT = Thickness in inches (ex. $0.040'' = 040$)

Example: TCF160-05001000-040

Part numbers will be provided in inches



TGN Series

Leader Tech's TGN series are a new ultra-thin thermal pad with low thermal resistance/impedance. This thermal pad is fabricated by combining graphene and silicone. The materials are arranged in the polymer matrix in an orderly manner to form a good thermally conductive path, which greatly improves the efficiency of heat conduction. In addition, this material has high resiliency and low density which can be used as a replacement of thermal grease material.

Part Series	Test Method	TGN700	TGN900	TGN1300
Thermal Properties				
Thermal Conductivity Z axis (W/m-K)	ASTM D 5470	70	90	130
Thermal Conductivity X axis (W/m-K)	ASTM D 5470	600	600	600
Thermal Conductivity Y axis (W/m-K)	ASTM D 5470	25	25	25
Thermal Impedance ($^{\circ}\text{C-in}^2/\text{W}$; @50psi)	ASTM D 5470	≤ 0.013	≤ 0.010	≤ 0.007
Physical Properties				
Color	Visual	Black	Black	Black
Thickness Range (in, (mm))	ASTM D 374	0.012 (0.3)	0.008-0.031 (0.2-0.8)	0.008-0.020 (0.2-0.5)
Width & Length (in, (mm))	N/A	3.54 x 3.54 (90 x 90)	3.54 x 3.54 (90 x 90)	1.57 x 1.57 (40 x 40)
Density (lb/in ³ , (g/cc))	ASTM D 792	0.022 (0.6)	0.022 (0.6)	0.036 (1)
Compression Ratio @50 psi (%)	ASTM C 165	≥ 50	≥ 50	≥ 25
Compression Stress @50% (psi)	ASTM D 575	≤ 60	≤ 60	≤ 150
Tensile Strength (M Pa)	ASTM D 412	≥ 0.05 X axis ≥ 0.02 Y axis	≥ 0.05 X axis ≥ 0.02 Y axis	≥ 0.05
Resilience (%)	ASTM D 575	≥ 60	≥ 60	≥ 70
Operating Temperature($^{\circ}\text{F}$ (C))	IEC60068-2-14	-40 to 302 (-40 to 150)	-40 to 302 (-40 to 150)	-40 to 302 (-40 to 150)
Shelf Life (Months)	N/A	24	24	24

Material Features:

- Low Density
- Low thermal resistance
- Good thermal stability

Applications

- Graphic Processors
- Base stations
- Microprocessors
- Data Centers

Storage Conditions:

- Store in dark environment
- Storage Temperature: $\leq 30^{\circ}\text{C}$
- Storage Humidity: $\leq 70\%$

Shelf Life:

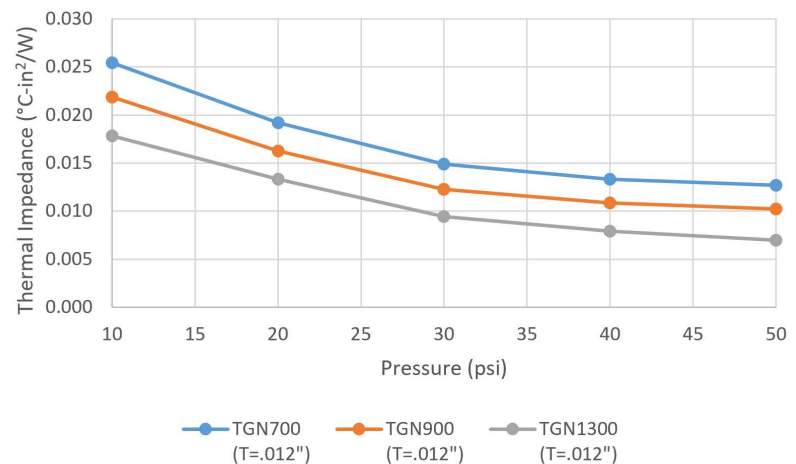
- Stored at storage conditions:
Two years

Short Term Operating Temperature:

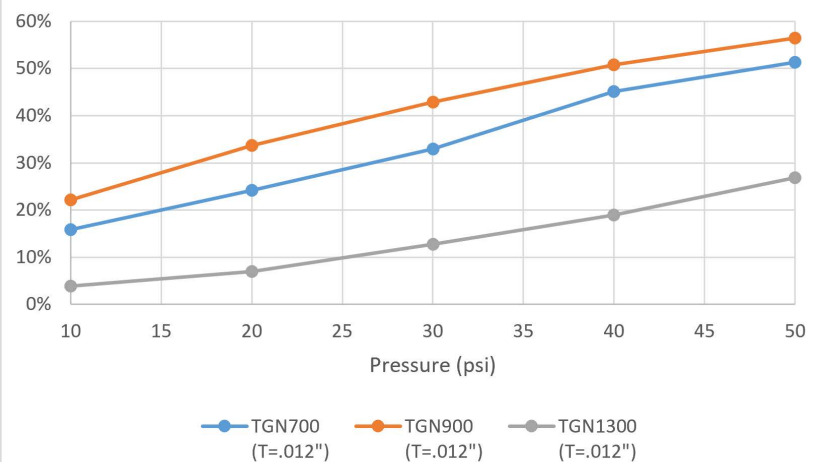
- 500°F (260°C) for 30 minutes.



Thermal Impedance



Compression Ratio



Global EMI Shielding Technology Center
12420 Race Track Rd., Tampa, Florida 33626
866.TECH.EMI (866.832.4364) t 813.855.6921 f 813.855.3291

www.LeaderTechInc.com



EMI/RFI Board, Enclosure, Cable Shielding & Thermal Solutions

ISO 9001:2015  RoHS
CERTIFIED COMPLIANT

Copyright© Leader Tech, Inc. 2026