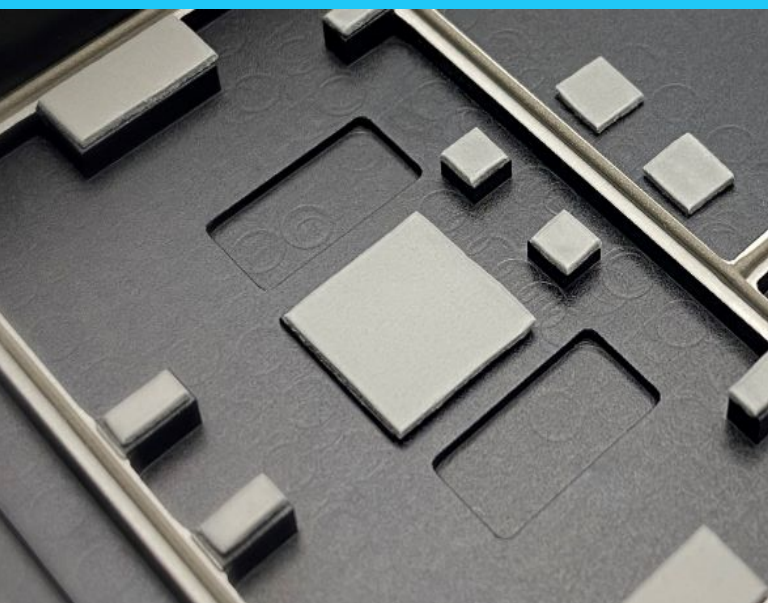


Thermal Conductive Gap Filler Pad

GPE000 Series



Description

The GPE000 series contains silicone rubber with superior thermal conductivity 11 W/m-K. It is a specially treated high-performance particle filled silicone rubber, containing an extremely conforming and thermally conductive thermal pad.

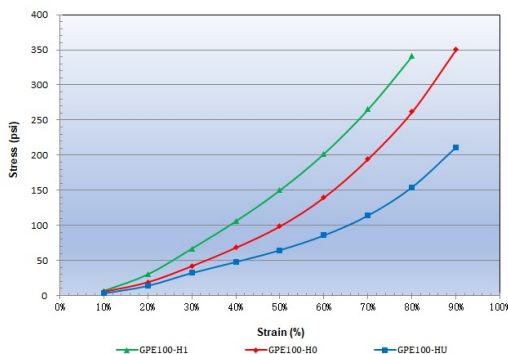
The Ultrasoft and Übersoft versions fill voids and rugged surfaces, while efficiently transferring heat from components to the heat sink.

Benefits

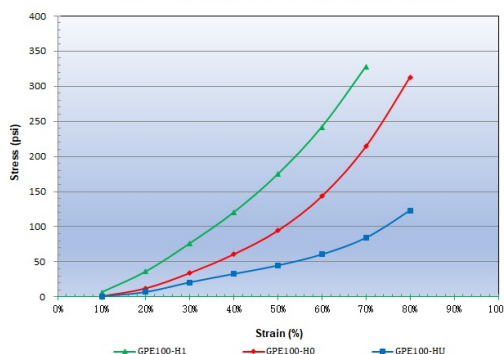
- Extreme thermal conductive performance 11 W/m-K
- Hardness options include: Standard, Ultrasoft and Übersoft
- Provides high wettability
- Self-tacky and non-tacky available

Typical Properties of GPE000 Series	Typical Value	Test Method
Construction	Filled silicone elastomer sheet	--
Color	Light Gray	Visual
Inherent Surface Tacky	2 sides	--
Reinforcement Carrier (Optional)	G (0.25mm thick hardened skin with fiberglass woven reinforcement on one side)	--
Surface Treatment (Optional)	A0 (0.25mm thick hardened skin on one side having reduced natural tacky property) SPA0 (Spraying Boron Nitride Powders to remove natural tacky property on one side)	--
Thickness Range	0.25mm to 10mm	ASTM D374
Density	2.45 g/cm ³	ASTM D792
Hardness (Optional)	H1 (Standard): 46 Shore OO H0 (Ultrasoft): 36 Shore OO, starts from 0.50mm HU (Übersoft): 26 Shore OO, starts from 1.0mm	ASTM D2240
Operating Temperature Range	-55 to 200 °C	TGA+DMA
Flammability Rating	V-0 (UL File E333972)	UL 94
Outgassing	TML : 0.13% ; CVCM: 0.03%; WVR: 0.03%	ASTM E595
Dielectric Strength	50 V _{AC} /mm	ASTM D149
Volume Resistivity	>10 ⁴ ohm-cm	ASTM D257
Thermal Conductivity (W/m-K)	11.0 W/m-K	ASTM D5470 modified
Thermal Impedance (°C-in ² /W) @1.0mm @ 50 psi	H1 hardness: 0.219 °C-in ² /W	
	H0 hardness: 0.203 °C-in ² /W	
	HU hardness: 0.112 °C-in ² /W	

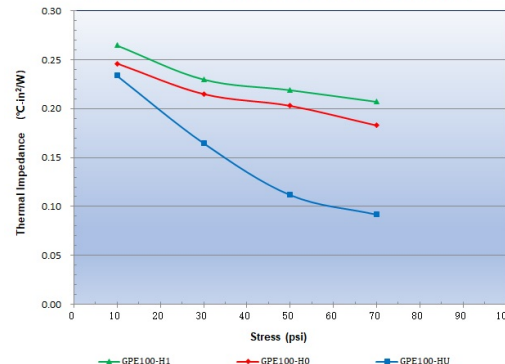
Stress Vs. Strain of GPE100-H1/H0/HU (1.0mm thick) with Constant Rate of Strain
(@ Temp=25-29°C, Constant Rate of Strain = 0.01 inch/min.)



Stress Vs. Strain of GPE100-H1/H0/HU (1.0mm thick) with Step Application of Strain
(@ Temp=25-29°C, Rate of Strain = 0.01 inch/min, for each step application of strain, stress measurement time interval of 2min. for each step application of strain)



Thermal Impedance Vs. Stress of GPE100-H1/H0/HU (1.0mm thick)
(at Temp=60°C, Step application of pressure 10, 30, 50, 70 psi, ASTM D 5470 modified)



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REV 1.0