

# Max-THERM

## Thermal Interface Material Selection Guide

### Thermally Conductive Gap Filler Pad GP Series

A specially treated high performance silicone elastomer impregnated with thermal conductive particles, creating a **conforming and thermal conductive gap filler pad**.

Three different softness options: Standard (H1), Ultrasoft (H0) and Ubersoft (HU) provide the highest conformability under lower compression force, Natural tacky on both sides reduces contact thermal resistance.

Multi-layer forming technology helps to get the balance of performance and handling while enabling engineers in design flexibility.

### Thermally & Electrically Conductive Pad GP-CP Series

Silicone elastomer option with advanced thermal and electrical conductive properties, preferred for applications where both thermal and electrical conduction are required.

Multi-layer forming provides flexible solutions for the most complex thermal management requirements. This process combines similar types of silicone material with various hardness levels, adhesion and rebound force; allowing for multi-layered physical properties while maintaining consistent thermal performance.

**Multi-layer technology provides an excellent option that will reduce cost, but not performance.** It is suitable for all thermal pad applications greater than 0.5mm and provides an ideal solution for Ultrasoft and high tensile strength applications.

**Non-Tacky Layer** Provides a non-tacky surface for better handling

**Glass Fabric Reinforcement** Improves the dielectric strength

**Ultrasoft or Ubersoft Layer** An extremely soft and low thermal impedance layer requiring less compression force to achieve a higher deflection

**Extra Adhesive Layer** Optional extra adhesive layer for ensured adhesion

TYPICAL PROPERTIES	GP1000	GP2000	GP3000	GP5000	GP7000	GP8000	GPE000	GP-CP5000
Form	Thermal Conductive Gap Filler Pad							Thermal & Electrical Conductive Pad
Color	Light Gray	Blue	Gray	Light Blue	Cyan	Light Gray	Light Gray	Light Gray
Thickness Range	0.13 - 10mm				0.25 - 10mm			0.15, 0.25, 0.50, 0.75, 1.00mm
Specific Gravity	2.00 g/cm <sup>3</sup>	2.20 g/cm <sup>3</sup>	2.60 g/cm <sup>3</sup>	2.90 g/cm <sup>3</sup>	3.00 g/cm <sup>3</sup>	2.50 g/cm <sup>3</sup>	2.45 g/cm <sup>3</sup>	2.54 g/cm <sup>3</sup>
Thermal Conductivity	1.0 W/m-K	1.5 W/m-K	2.0 W/m-K	3.0 W/m-K	5.0 W/m-K	7.8 W/m-K	11.0 W/m-K	1.5 W/m-K
Multilayer Capable	0.5mm up							N/A
Insulation Properties	High	High	High	High	High	Low	Low	Conductive, DC Through Resistance <0.5 ohm
Flammability Rating	UL 94V-0							UL 94V-0
Operating Temp. Range	-55 to 200°C							-55 to 200°C
Standard Hardness (H1)	46 Shore OO			46 Shore OO				25 Shore A
Ultrasoft Hardness (H0)	N/A			36 Shore OO				N/A
Ubersoft Hardness (HU)	N/A			26 Shore OO				N/A