TECHNICAL DATASHEET:
BERGQUIST GAP PAD TGP 40000SF

PRODUCT DESCRIPTION

A 40 W/m·K silicone-free Gap Pad with oriented filler technology achieving ultra-high thermal conductivity. BERGQUIST GAP PAD TGP 40000SF is a gap filling material rated at a thermal conductivity of 40 W/m·K. It is specially formulated for high-performance applications requiring silicone-free solutions, and offers exceptional thermal performance at typical pressures due to its unique filler package. The material is not electrically insulating. Available with one-side PSA for enhanced handling and fixturing; the material is not naturally tacky.

TYPICAL APPLICATIONS

- 5G telecom and datacom
- DSPs in optical transceivers
- GPUs and CPUs in high-performance computing
- Immersion cooling for AI accelerators
- Vehicle control units and sensors for ADAS
- Aerospace and defense electronics
- LEDs and lasers

PRODUCT FEATURES & BENEFITS

- Thermal conductivity: 40 W/m·K
- Silicone free: low bleed, low outgassing
- Oriented filler technology
- Not electrically insulating
- Ease of handling, assembly and disassembly
- One-side PSA available for handling and fixturing

PRODUCT SPECIFICATIONS

Technology	Silicone free
Appearance	Black
Application	Thermal Management / TIM (Thermal Interface Material)
Operating Temperature Range	-40 to 150°C
Electrical Isolation	Not electrically insulating
Surface Tack	Not naturally tacky; one-side PSA optional
Configurations Available	Sheet size 6" x 6" (4" x 6" for 20 mil); standard thicknesses 20, 40, 60, 80, 100, 125 mil; custom thicknesses and part sizes on request
Shelf Life (Optimal Storage)	365 days at 5 to 28°C, 50% RH (±10), sealed with moisture barrier packaging

Specifications are believed to be accurate at the time of publication and are subject to change without notice. It is the responsibility of the end-user to test and determine suitability of this material for a particular application. H-O will provide samples for this purpose at no charge. **REV. 0**

TYPICAL PROPERTIES OF CURED MATERIAL

Optimal thermal performance at 10% strain. Thermal conductivity measured on 0.5 to 1.5 mm pads at 50 psi. Stress measured on 40 mil thick pads.

TECHNICAL DATA	VALUE	UNIT	TEST METHOD / STANDARD
Physical Properties			
Hardness, Shore 00	85	—	ASTM D2240
Density	1.7	g/cc	ASTM D792
Shelf Life	365	days	—
Stress @ 10% Strain (40 mil pads)	56	psi	ASTM D575
Thermal Properties			
Thermal Conductivity (0.5 to 1.5 mm pads at 50 psi)	40	W/(m·K)	ASTM D5470

STORAGE

Store product in an unopened container in a dry location. Optimal storage: 5 to 28°C, 50% RH (±10) for a 365-day shelf life in sealed containers with moisture barrier packaging. Material removed from containers may be contaminated during use; do not return product to the original container.

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