DATASHEET

SUPERTHERMAL GAP FILLER

HIGH CONDUCTIVITY THERMAL GAP FILLING PADS

These unique gap filling pads utilize a proprietary fiber orientation technology to produce highly thermally conductive materials. Our Aavid SuperThermal line of TIMs deliver the high conductivity of carbon fiber without sacrificing the flexibility and adhesion capabilities of a polymer. The SuperThermal pads and sheets are ideal for cooling high heat sources such as CPUs, GPUs and high density LEDs. This line includes pads made with specialized organic materials with extremely high thermal conductivity and low volume resistance.

RoHS Compliant



FEATURES:

- Extremely High Thermal Conductivity
- Low Thermal Resistance
- Flexible, Easy Contouring
- Adhesive & Non-Adhesive Options
- Puncture, Shear and Tear Resistant

SIZES

SuperThermal Interface Pads are available in full sheets that Aavid can cut and shape to suit your needs. They are also available in easy to use 25.4mm x 25.4mm (1”x 1”) and 76.2mm x 76.2mm (3”x 3”) pads for quick and simple assembly. For full sheet sizes please contact Aavid.

PART NUMBERS

Part Numbers for Aavid Gap Pads are made up of six sections that represent the product, thickness, adhesion and shape. Instructions on how to build your part numbers are available in the document *Building an Aavid Gap Pad Part Number*.

SUPERTHERMAL PRODUCT LINE DETAILS[1]

Product Name	*SuperThermal A072*	*SuperThermal B132*	*SuperThermal C128*	*SuperThermal D089*
Thermal Properties				
Thermal Conductivity (W/mK)	7.2	13.2	12.8	8.9
Operating Temp. Range (°C)	-40° - 150°	-40° - 150°	-40° - 150°	-40° - 150°
Thermal Resistance at 10psi (at % Strain) [2]	2.0 (at 18%)	1.1 (at 19%)	0.78 (at 9.6%)	0.98 (at 22%)
Thermal Resistance at 20psi (at % Strain) [2]	1.9 (at 27%)	1.1 (at 26%)	0.72 (at 16%)	0.84 (at 24%)
Thermal Resistance at 40psi (at % Strain) [2]	1.6 (at 31%)	0.98 (at 39%)	0.60 (at 30%)	0.58 (at 29%)
Mechanical Properties				
Color	Black/ Dark Grey	Grey	Black	Black
Adhesion	Double-Sided	Double-Sided	Non-Adhesive	Non-Adhesive
Base Material	Silicone	Silicone	Silicone	Silicone
Carrier / Reinforcement	PET Film	PET Film	PET Film	PET Film
Hardness (ASTM D2240, Shore 00)	63	55	65	77
Density (g/cm^3)	1.8	2.4	2.4	2.4
Tensile Strength (kPa)	33	22	16	44
Thickness Availability (mm)	1, 2 or 3mm	1, 2 or 3mm	0.5 or 1mm	0.2 or 1mm
Electrical Properties				
Volume Resistivity (Ω-m)	≥10^{10}	≥10^{10}	<100	<100
Breakdown Voltage (kVAC)	>1.0	>0.9	<0.1	<0.1
Flammability Rating UL94	V-0	V-0	V-0	V-0

[1] Measurement is for 1mm thickness, information on additional thicknesses is available on request.
[2] Strain is the ratio of the reduction in pad thickness to the initial thickness of the pad. Thermal resistance is measured in (°C x cm^2/W).