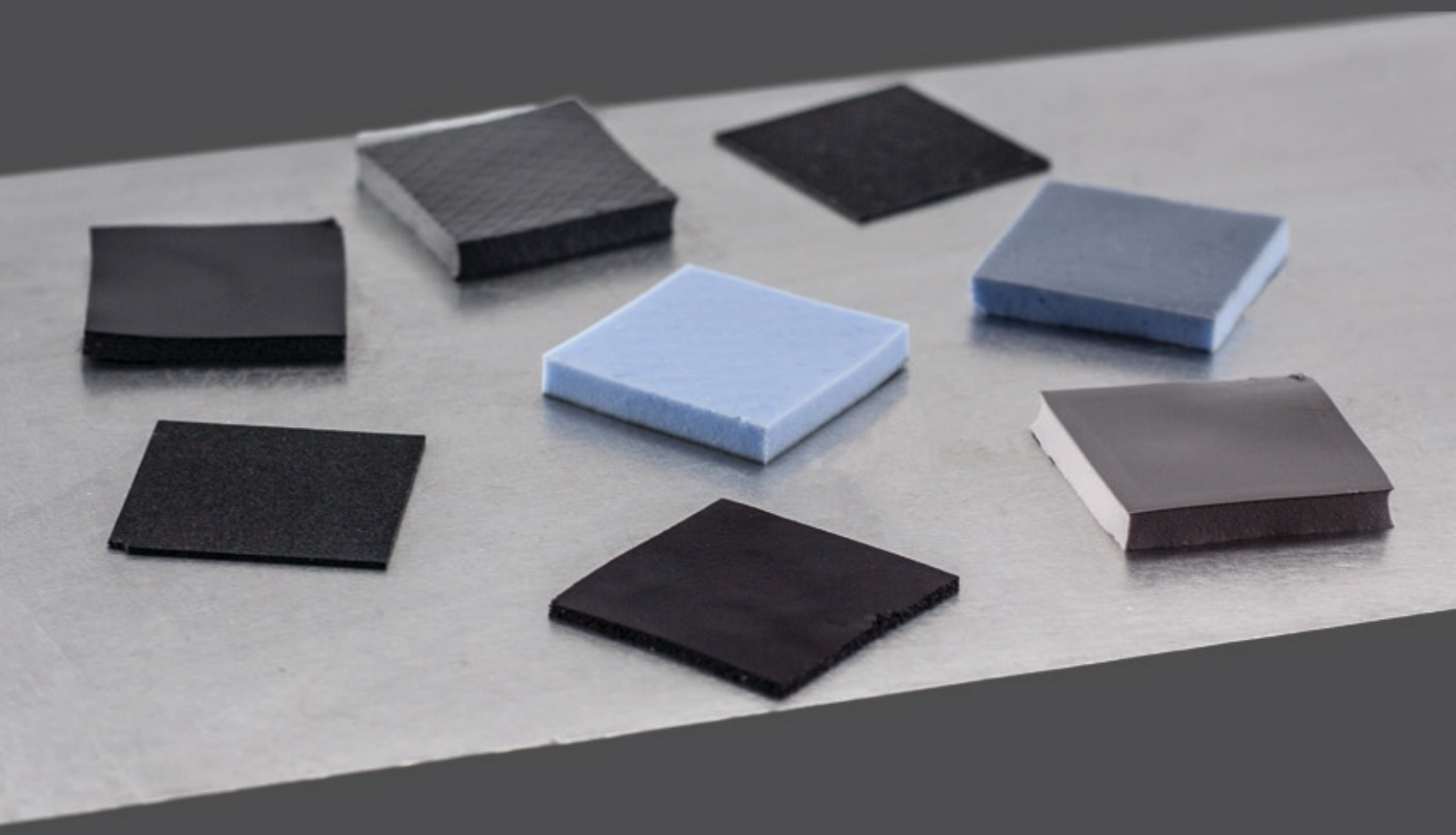
# AAVID THERMALLOY



Aavid will soon be releasing its new line of premium gap filling pads and sheets!

These new super soft, ultra-compliant gap fillers offer high thermal conductance, ranging from 0.8W/mk to 13.2W/mk, without sacrificing flexibility and ease of use.

These gap pads and sheets are not yet available for online purchase. To request more information or samples as they become available, call Aavid at 1.855.322.2843 or email estore@aavid.com.

www.aavid.com
1.855.322.2843
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AAVID THERMALLOY

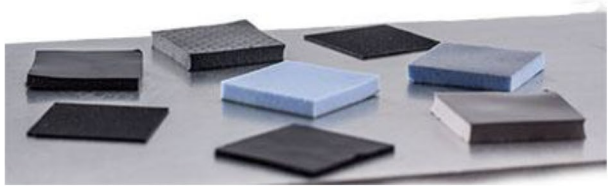
DATASHEET

# 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/cm³)* | 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)* | $\geq 10^{10}$ | $\geq 10^{10}$ | <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 cm²/W).

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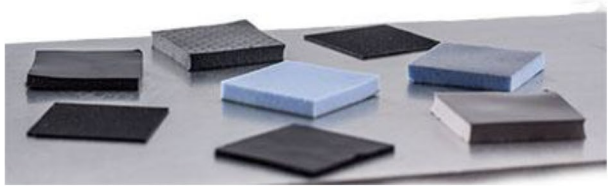
DATASHEET

# SOFTFLEX GAP FILLER

RoHS Compliant

## LIGHT FLEXIBLE THERMAL GAP FILLING PADS

The Aavid SoftFlex series is our most flexible and diverse line of thermal conductive pads. The compressibility and adhesion features enable a dramatic reduction in thermal resistance when mounting. The unique flexibility of the SoftFlex base material provides exceptional contouring and excellent cushioning performance. These defining features ensure that SoftFlex Gap Fillers are ideal for dealing with uneven surfaces, parts with varying heights and devices that require greater flexibility in design, all the while reducing overall stress to the PCB and eliminating tolerances.



## SIZES

SoftFlex Thermal Interface Pads are available in full 400mm x 200mm 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.

## PART NUMBERS

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

**FEATURES:**

- High Thermal Conductivity
- Reduced Thermal Resistance
- Wide Range of Hardness
- Flexible, Easy Contouring
- Single & Double Sided Adhesion
- Decreased Strain
- Puncture, Shear and Tear Resistant

## SOFTFLEX PRODUCT LINE DETAILS[1]

| Product Name | SoftFlex A014 | SoftFlex B016 | SoftFlex C022 | SoftFlex D021 | SoftFlex E038 |
|---|---|---|---|---|---|
| **Thermal Properties** | | | | | |
| Thermal Conductivity (W/mK) | 1.4 | 1.6 | 2.2 | 2.1 | 3.8 |
| Operating Temp. Range (°C) | -40° - 150° | -40° - 150° | -40° - 150° | -40° - 150° | -40° - 150° |
| Thermal Resistance at 10psi (at % Strain) [2] | 6.8 (at 24%) | 4.6 (at 39%) | 4.0 (at 28%) | 5.0 (at 19%) | 2.4 (at 18%) |
| Thermal Resistance at 20psi (at % Strain) [2] | 6.0 (at 26%) | 3.7 (at 43%) | 3.4 (at 33%) | 3.9 (at 21%) | 2.0 (at 20%) |
| Thermal Resistance at 40psi (at % Strain) [2] | 5.2 (at 30%) | 3.6 (at 52%) | 2.9 (at 42%) | 2.3 (at 25%) | 1.9 (at 24%) |
| **Mechanical Properties** | | | | | |
| Color | Blue/ Grey | Dark Grey/ Black | Pink/ Grey | Pink/ Light Pink | Grey/ Dark Grey |
| Adhesion | Single-Sided | Single-Sided | Single-Sided | Single-Sided | Double-Sided |
| Base Material | Silicone | Silicone | Silicone | Silicone | Silicone |
| Carrier / Reinforcement | PET Film | PET Film | PET Film | PET Film | PET Film |
| Hardness (ASTM D2240, Shore 00) | 36 | 37 | 34 | 48 | 71 |
| Density ($g/cm^3$) | 1.8 | 2.0 | 2.9 | 2.9 | 3.1 |
| Tensile Strength (kPa) | 15 | 15 | 22 | 13 | - |
| Thickness Availability (mm) | 1, 2 or 3mm | 1, 2 or 3mm | 1, 2 or 3mm | 1, 2 or 3mm | 1, 2 or 3mm |
| **Electrical Properties** | | | | | |
| Volume Resistivity (Ω-m) | $\geq 10^{10}$ | $\geq 10^{10}$ | $\geq 10^{10}$ | $\geq 10^{10}$ | $\geq 10^{10}$ |
| Breakdown Voltage (kVAC) | ≥10 | ≥10 | ≥10 | ≥10 | ≥10 |
| Flammability Rating UL94 | V-0 | V-0 | V-1 | V-1 | 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).

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DATASHEET

# WAVEBLOCKER GAP FILLER

RoHS Compliant

## WAVE ABSORBING GAP FILLING PADS

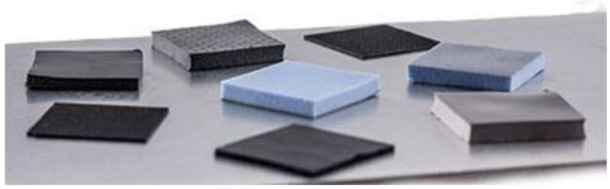
The new Aavid WaveBlocker has a high electromagnetic wave permeability allowing it to absorb EM wave interference. It's EM absorbing capacity ranges from 10MHz to several GHz. Due to this unique feature, Aavid WaveBlocker pads are ideal for negating problems associated with the noise of EM waves and heat radiation. These pads and sheets are RoHS compliant, halogen free and free from environmentally hazardous substances.

## SIZES

Aavid WaveBlocker Thermal Interface Pads are available in full 400mm x 200mm 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.

## 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*.



**FEATURES:**

- Radio Wave Absorption
- Flexible, Easy Contouring
- Double-Sided Adhesion
- Halogen Free
- Puncture, Shear and Tear Resistant

## WAVEBLOCKER PRODUCT LINE DETAILS[1]

| *Product Name* | *WaveBlocker A008* |
|---|---|
| ***Thermal Properties*** | |
| *Thermal Conductivity (W/mK)* | 0.8 |
| *Operating Temp. Range (°C)* | -40° - 150° |
| *Thermal Resistance at 10psi (at % Strain) *** | 9.5 (at 25%) |
| *Thermal Resistance at 20psi (at % Strain) *** | 7.8 (at 27%) |
| *Thermal Resistance at 40psi (at % Strain) *** | 6.4 (at 31%) |
| ***Mechanical Properties*** | |
| *Color* | Black |
| *Adhesion* | Double-Sided |
| *Base Material* | Silicone |
| *Carrier / Reinforcement* | PET Film |
| *Hardness (ASTM D2240, Shore 00)* | 48 |
| *Density (g/cm$^3$)* | 3.3 |
| *Tensile Strength (kPa)* | 25 |
| *Thickness Availability (mm)* | 1, 2 or 3mm |
| ***Electrical Properties*** | |
| *Permeability μ'(1MHz)* | 10 |
| *Volume Resistivity (Ω-m)* | ≥$10^{10}$ |
| *Breakdown Voltage (ACkV/mm)* | >8.0 |
| *Voltage Tolerance (ACkV/mm)* | >7.0 |
| *Flammability Rating UL94* | 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).