

WE SHIELD YOUR WORLD



THERMAL INTERFACE SOLUTIONS

**EURO**  
Technologies

## THERMAL INTERFACE SOLUTIONS

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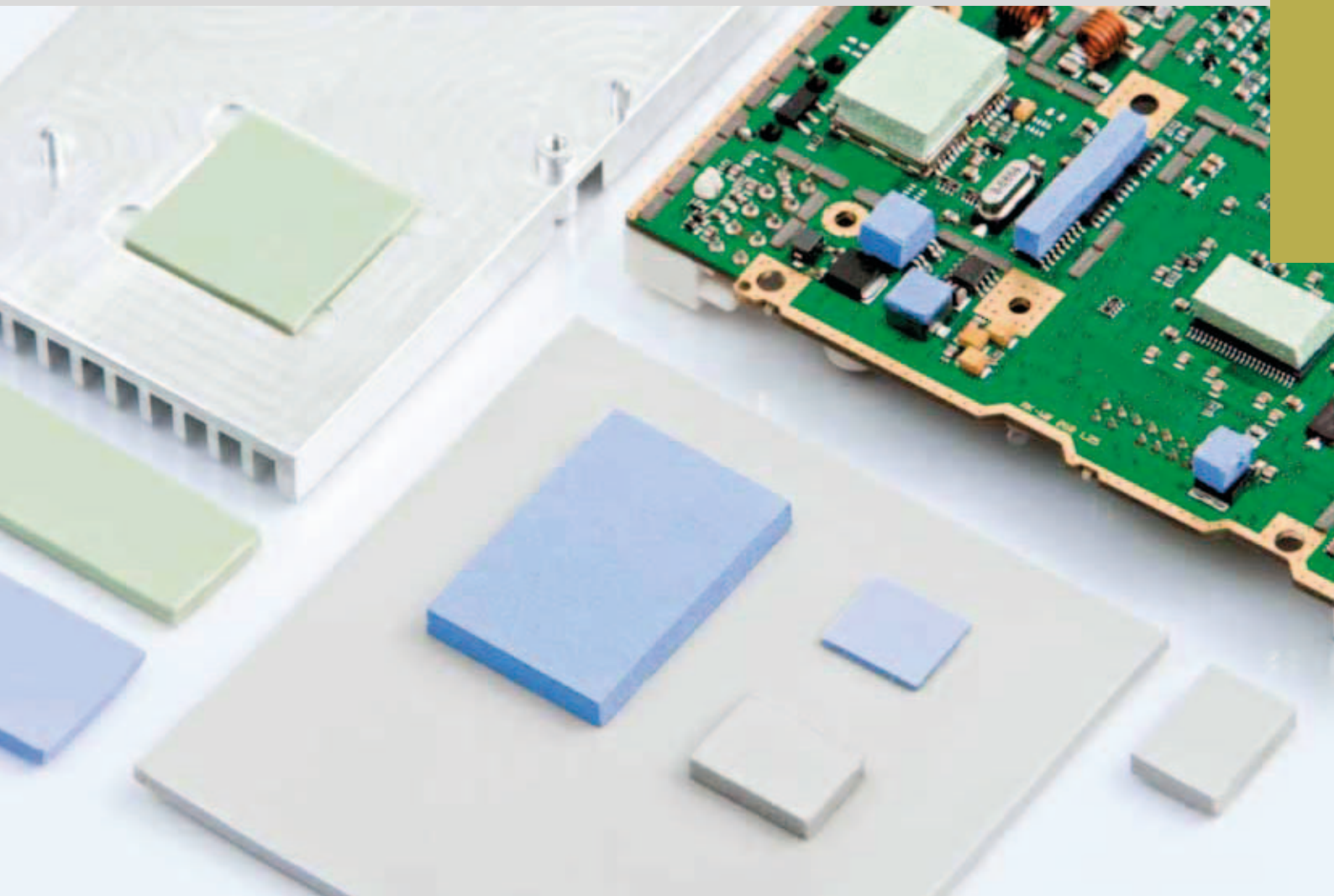
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1.

**GAP  
FILLER.**



## GENERAL INFORMATION

This product family is used to fill air gaps between hot components and heat sinks or metal chassis.

Their flexible, elastic nature allows them to blanket highly uneven surfaces.

**Gap Fillers** are used where high thermal conductivity and low pressure are required.

We offer the softest, highest thermally conductive gap fillers available (in thickness from 0.5mm to 5.0 mm and up).

Our **Gap Fillers** are soft and very compliant. They afford designers the most flexibility in dimensional tolerancing.

Extreme compliancy reduces stress on the components while higher thermal conductivity provides the thermal performance required.

### Customizations



## FEATURES AND BENEFITS

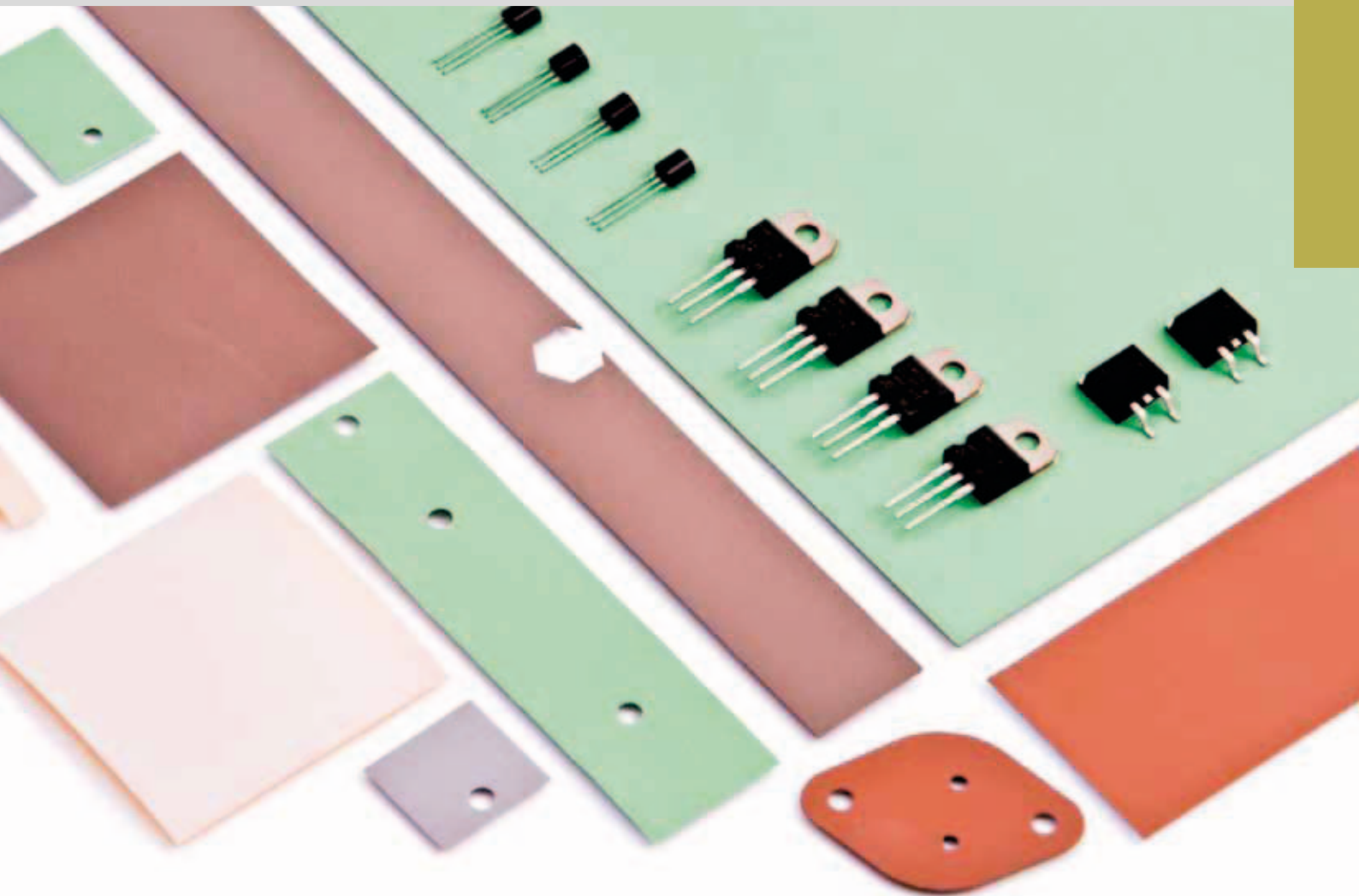
- Thermal Conductivity Range from 0.8 to 6.0 W/mK.
- Thickness from 0.5 to 5.0 mm and up.
- Compliancy-rates up to 60 % deflection at 50 psi.
- Extreme Softness from 05 Shore 00.
- Natural Tacky on one or on both sides.
- Flammability rating up to UL94 V0.

## EXAMPLES OF APPLICATIONS

- Notebook Computers, Handheld Portable Micro Processors.
- Telecommunications Hardware.
- Semiconductor Test Equipment, Servers-Desktop Computers.
- High Speed Mass Storage Devices.
- Plasma Supply Panels, Memory Modules.
- Power Conversion Equipment, Audio & Video Components.

2.

**THERMALLY  
CONDUCTIVE  
INSULATOR.**



## GENERAL INFORMATION

This product family is composed by thermally conductive electrically insulating materials. They are designed for a wide range of applications where high performance of heat transfer and electrical isolation are required.

Our products are designed to resist cut through in a screw mounting application and to provide a more consistent breakdown voltage over other insulator constructions. Our special materials provide an excellent mating surface for low pressure clip mounting applications.

We've products available in a range of thermal performances to suit any application need.

This kind of material can be die-cut into any standard or custom shape or size of your choice.

### Customizations



## FEATURES AND BENEFITS

- Thermal Resistance from 0.16 °C-in<sup>2</sup>/W at 50 psi.
- High Dielectric Strength up to 9000 volts AC.
- Thickness from 0.051 mm.
- Resistant and cut through.
- Standard configurations available for TO-220, TO-247, TO-3P, TO-3L, TO-264, etc.
- Available with or without PSA (Pressure Sensitive Adhesive) on one side.
- Flammability rating up to UL94 V0.

## EXAMPLES OF APPLICATIONS

- AC/DC Power Supplies, Audio Amplifiers.
- Power Generators, UPS.
- Motor Controllers, Automotive Control Units.

**3.**

# **THERMAL GREASE.**





## GENERAL INFORMATION

This product family is the one which reaches the highest thermal properties creating industry leading low thermal resistances.

Our **Thermal Greases** provide high thermal conductivities, minimum bondline thicknesses and superior surface wetting.

They don't dry out or pump-out and remain stable through all standard reliability testing.

All our products are screen and stencil printable.

They're easy and ready to use and supplied in ½ kg, 1 kg and 3 kg containers. Customized syringes are available upon request.

**Euro Technologies Thermal Greases** are environmentally friendly meeting all regulatory provisions including RoHS.

### Customizations



## FEATURES AND BENEFITS

- Lowest Thermal Resistance from 0.009 °C-in<sup>2</sup>/W at 50 psi.
- Silicone based or Silicone free options.
- Cost effective solution.
- Screen and stencil printable.
- Designed for easy application.
- Flammability rating up to UL94 V0.

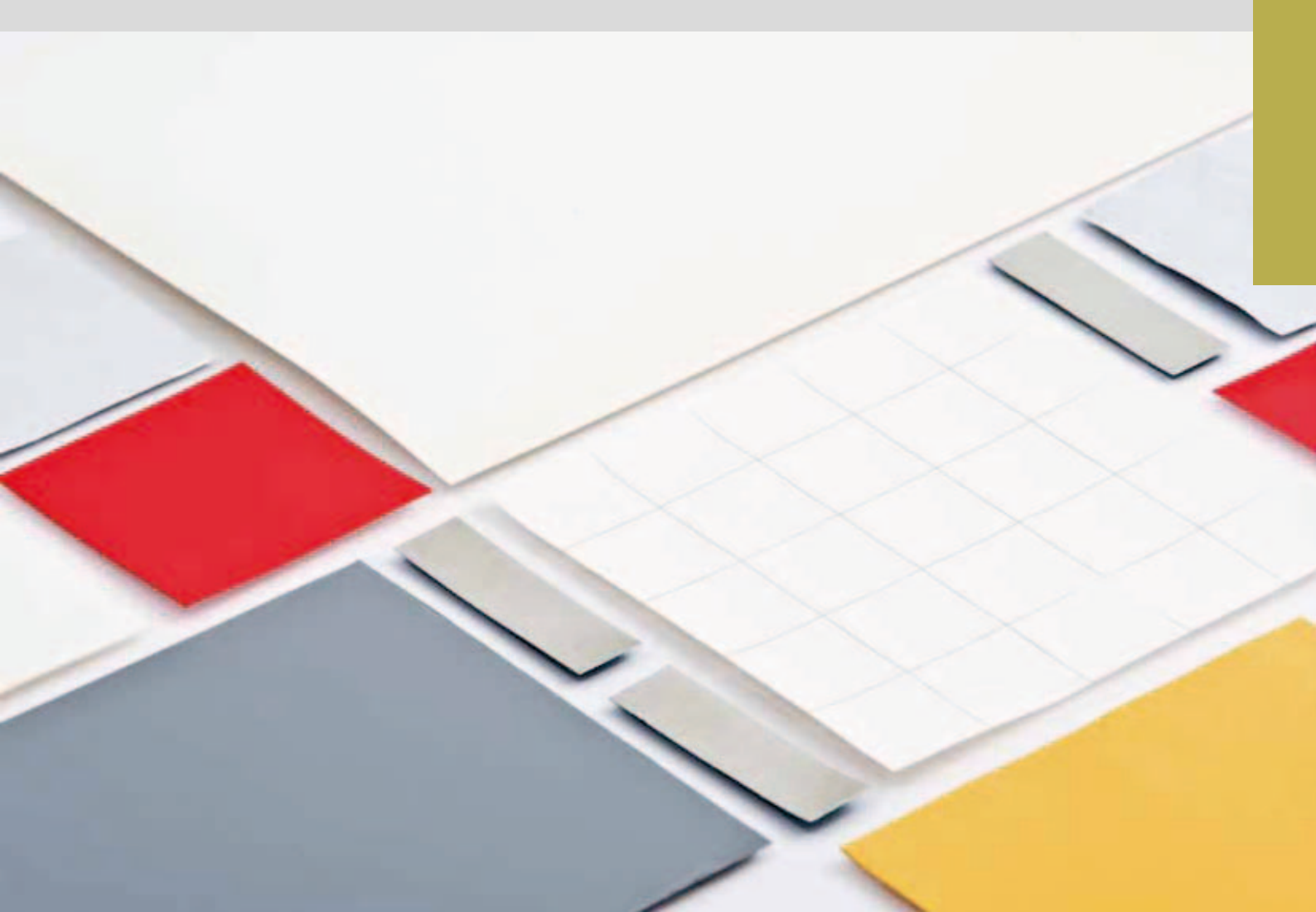
## EXAMPLES OF APPLICATIONS

- CPU computers, GPUs.
- Semiconductor cases and heat sinks.
- Power resistors and chassis.
- Thermoelectric cooling devices.
- Power components in general.



**4.**

# **THERMAL PHASE CHANGE MATERIAL.**



## GENERAL INFORMATION

This product family of **Phase Change Thermal Interface** materials combines the consistency and ease of use of elastomeric pads with the low thermal impedance of thermal grease.

This winning combination makes this product family an excellent choice for today's most demanding thermal interface applications.

At temperatures above its transition temperature of 50-52 °C, a phase change material begins to soften and flow, filling the microscopic irregularities of the components it contacts.

The result is a very thin interface with minimal thermal contact resistance.

This product family is a great replacement for messy grease and it's available as individual die-cut parts, kiss cut parts, on rolls or sheets.

### Customizations



## FEATURES AND BENEFITS

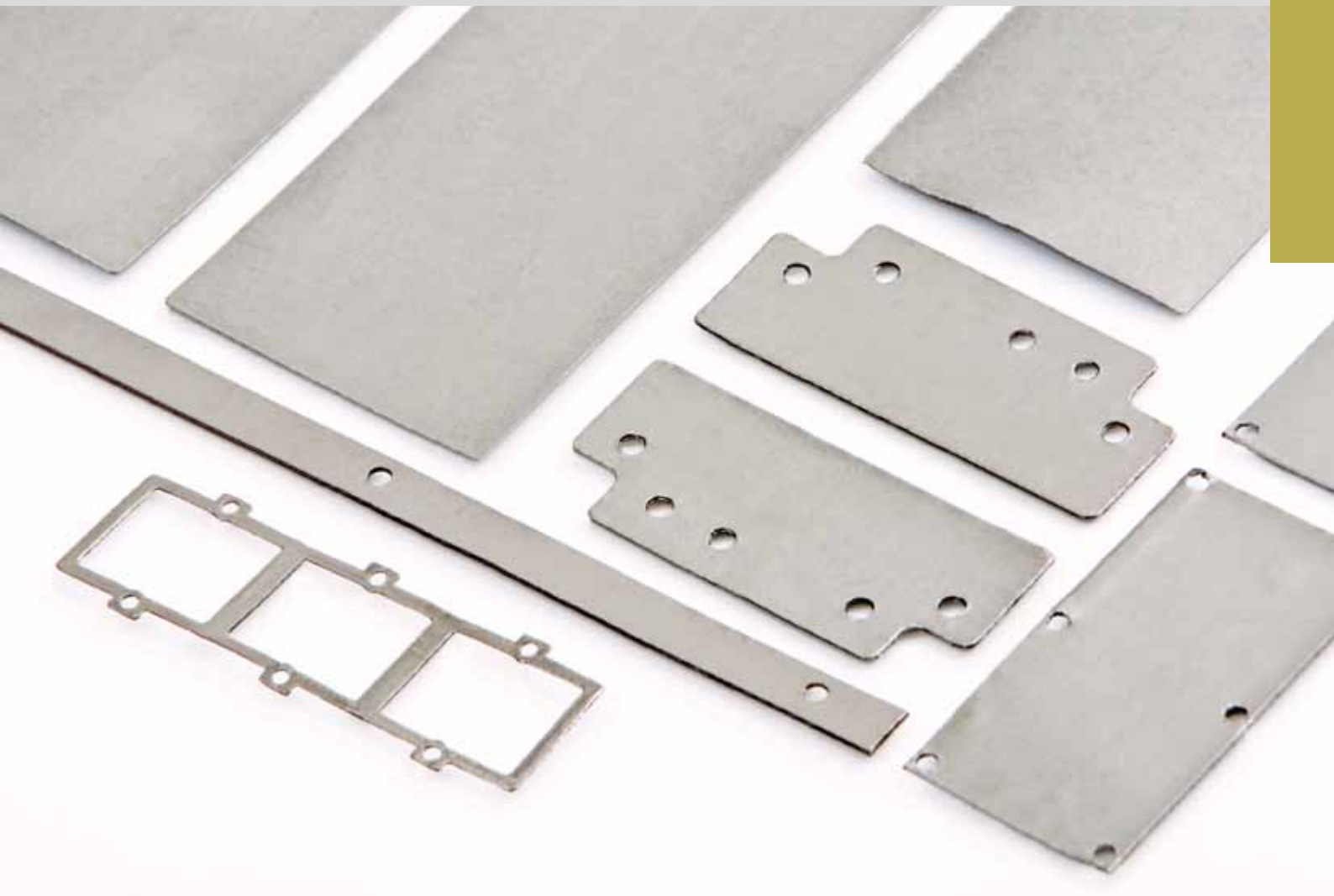
- Very low Thermal Resistance from 0.013 °C-in<sup>2</sup>/W at 50 psi.
- High reliability.
- Provide high value price/performance point.
- Easy to use and handling.
- Available in inherently tacky version for no adhesive needs.
- Flammability rating up to UL94 V0.

## EXAMPLES OF APPLICATIONS

- Microprocessors, Chipsets.
- Semiconductor cases and heat sinks.
- Power components and modules.
- Thermoelectric cooling devices, Testing systems.
- LED lighting and industrial electronics.
- Routers and wireless infrastructures.

**5.**

**THERMALLY  
AND  
ELECTRICALLY  
CONDUCTIVE  
INTERFACE.**



## GENERAL INFORMATION

This product family is a high-performance and cost effective thermal interface material.

It can be used when electrical insulation is not required. Its unique construction allows it to perfectly conform to surfaces, thus maximising heat transfer.

Due to an excellent thermal conductivity in the X-Y axis (240 W/mK) this material is a perfect solution also as heat spreader.

It's a 98 % graphite composition and it can be considered a valuable dry alternative to thermal compound. This product is available in thicknesses from 0.127 mm to 0.508 mm and it can be supplied with or without PSA (pressure sensitive adhesive) on one side.

### Customizations



## FEATURES AND BENEFITS

- High thermal conductivity of 6 W/mK in Z axis and 240 W/mK in the X-Y axis.
- Low thermal resistance.
- Thickness range from 0.127 to 0.508 mm
- Temperature range - 240 to 300 °C.
- Easy to handle and to die-cut.
- Available with or without PSA (Pressure Sensitive Adhesive) on one side.
- Flammability rating UL94 V0.

## EXAMPLES OF APPLICATIONS

- Power Supplies, Notebook computers.
- Power conversion equipment.
- Large telecommunications switching hardware.
- Where electrical grounding is required with good thermal conductivity.

6.

# INSULATOR TUBES.



## GENERAL INFORMATION

By using clip-mount Tubes a higher level of electrical isolation is achieved while still maintaining good thermal performance.

Our **Insulator Tubes** meet the stringent VDE specification for insulation.

Clip-mounted plastic power packages will meet much higher flash testing requirements than screw mounted devices.

The semiconductor (TO-220 and/or TO-247) is simply inserted into the Tube, which provides an all-round shroud.

The tubes' flexible wall accommodates most standard packages and retains the device ready for assembly.

### Customizations





**7.**

**METAL CLIPS.**



## GENERAL INFORMATION

Our **Metal Clips** offer a low cost and quicker way of mounting plastic case of transistors compared to the conventional nut, bolt and insulating bush methods.

Contact is made with the middle of the transistor which provides an even pressure and good thermal contact. Clips allow transistors to operate at higher voltages.

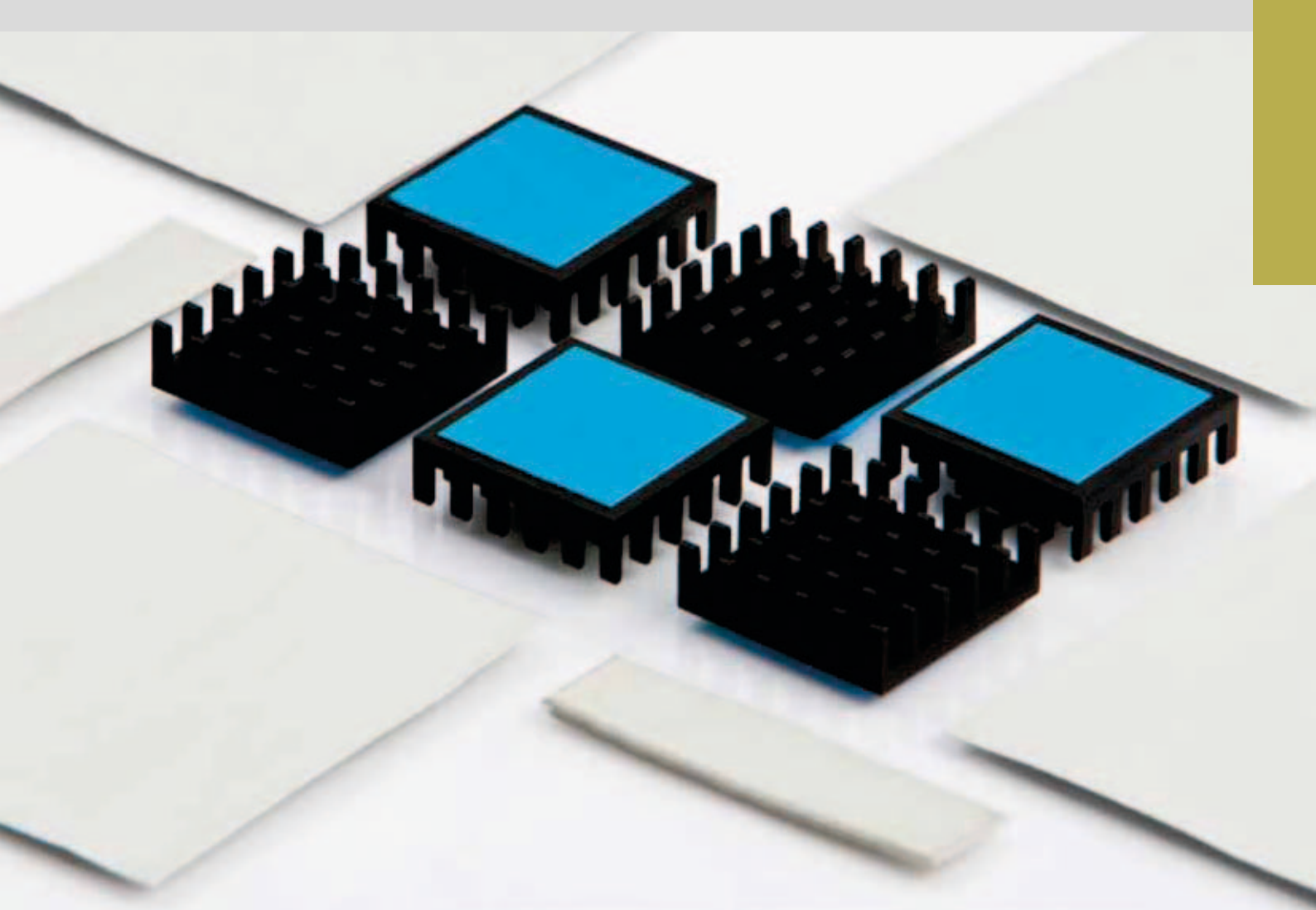
Our **Metal Clips** offer an easy way of mounting one or two plastic transistors in a small place.

### Customizations



8.

# DOUBLE-SIDE THERMAL CONDUCTIVE TAPE.



## GENERAL INFORMATION

It's a thermally conductive adhesive tape designed to provide an efficient method of mounting heat sinks onto devices such as microprocessor, small electronic packages and other components.

It eliminates the need for clips, clamps, other forms of mechanical fixing and messy thermal compound.

It consists of a highly conductive aluminium foil coated on both sides with thermally conductive high strength adhesive.

We can supply this tape in rolls, sheets or individual shapes.

### Customizations



9.

**THERMALLY  
CONDUCTIVE  
PRE-PREG  
DIELECTRIC.**



## GENERAL INFORMATION

This **Thermally Conductive Pre-Preg** with its outstanding electrical insulating capability makes possible the use of metal base materials as heat spreaders in printed circuit board laminate.

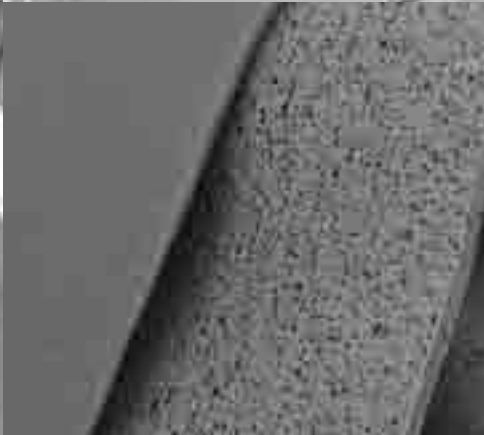
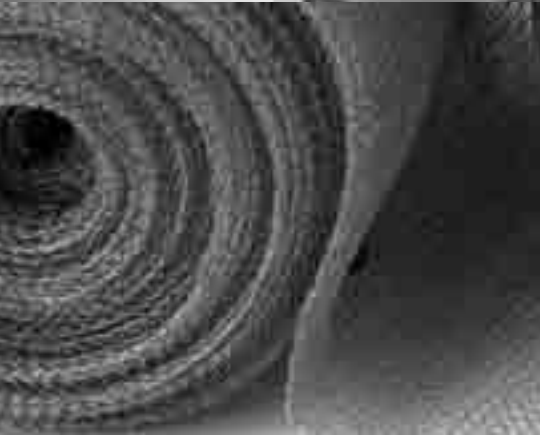
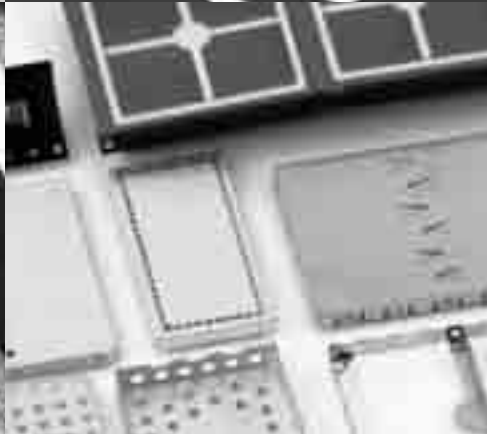
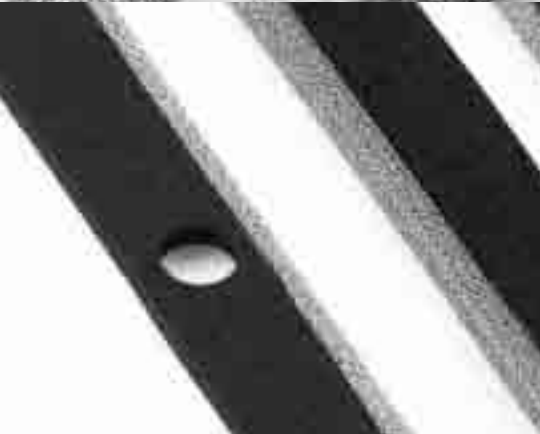
This material's high thermal conductivity of approximately 3 W/mK, high dielectric strength of 800 V/mil, strong adhesion and room temperature stability make it ideal for use as a pre-preg in thermally conductive PCBs.

### Customizations

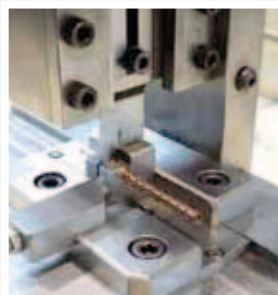
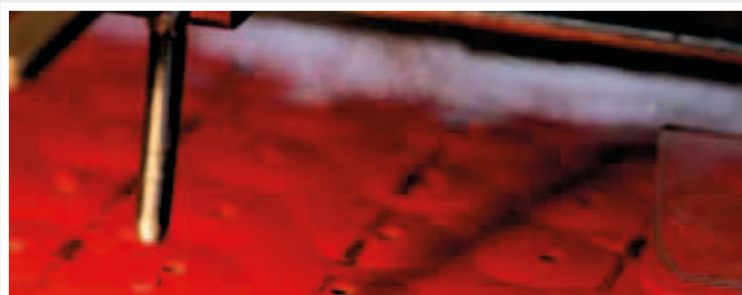
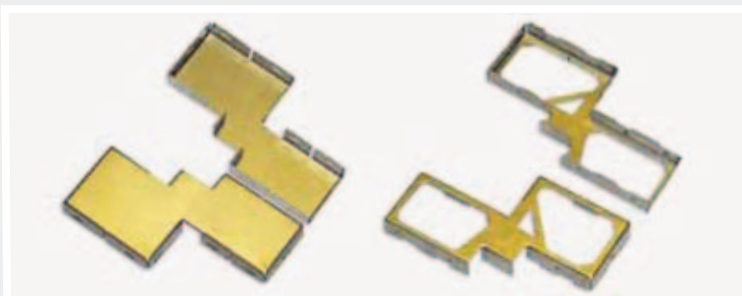




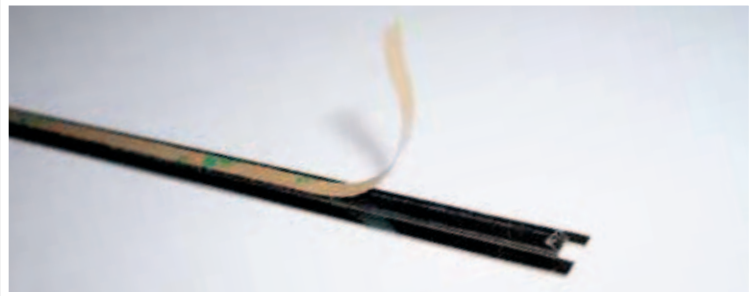
**CUSTOMIZATIONS.**



## Cutting

Cutting  
ToolsDie  
CuttingWater Jet  
CuttingOscillating  
Knife CuttingPhoto  
Etching  
Process  
and Hand  
Forming

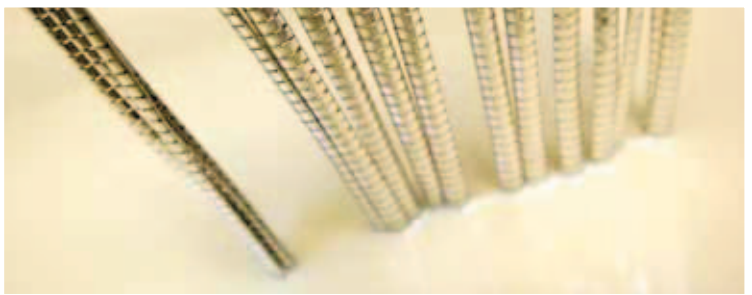
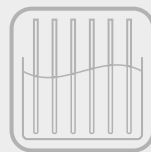
### Adhesive taping



### Mechanical fixations



### Surface galvanic treatment, nickel, zinc, tin, silver, gold plating



### Heat treatment for enhanced spring effects for copper beryllium part

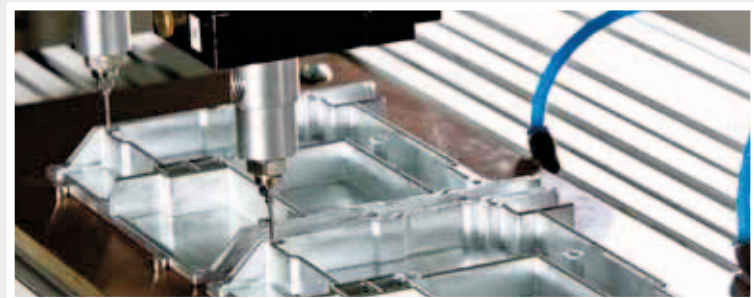
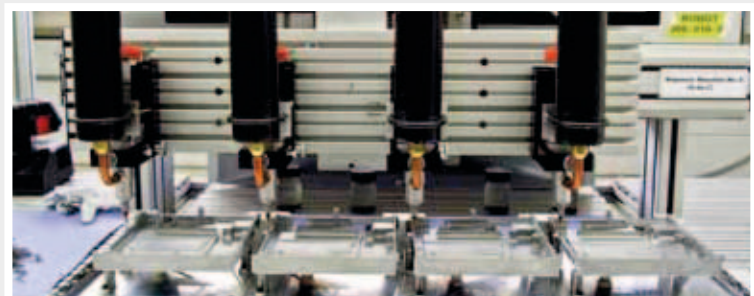
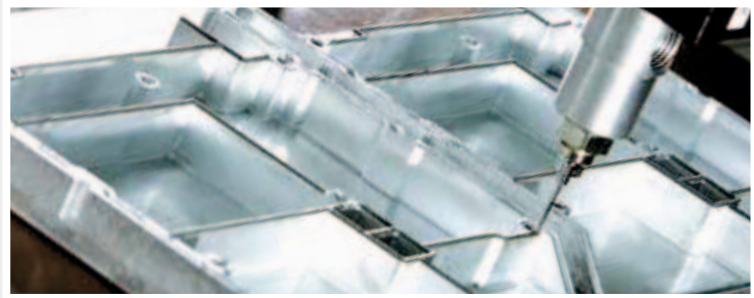


### Injection and/or compression moulding





## Dispensing







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