

TERMISK LEDENDE MATERIALE



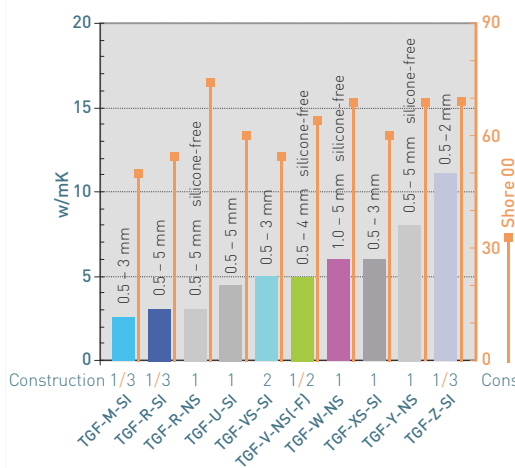
TIM OVERSICHT

TYPES

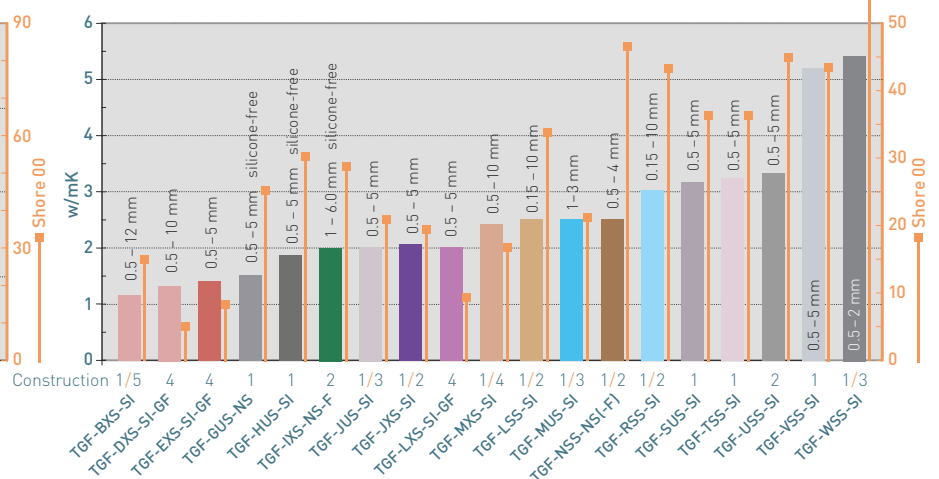
-
- This micrograph shows a cross-section of a microelectronic assembly. A dark, rectangular component is mounted on a light-colored substrate. The component is connected to the substrate by a solder joint. The solder joint is visible as a dark, irregular shape between the component and the substrate. The substrate has a textured, light-colored surface. The component has a dark, rectangular shape with some internal structure visible. The solder joint is located in the center of the image, between the component and the substrate.

Constructions 1 / 2 / 3 / 4 or 5

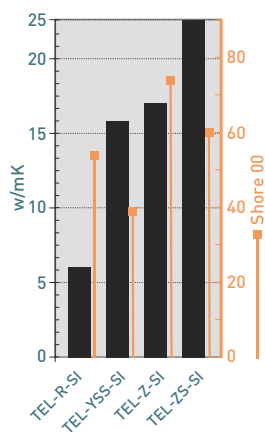
GAP FILLER/SOFT



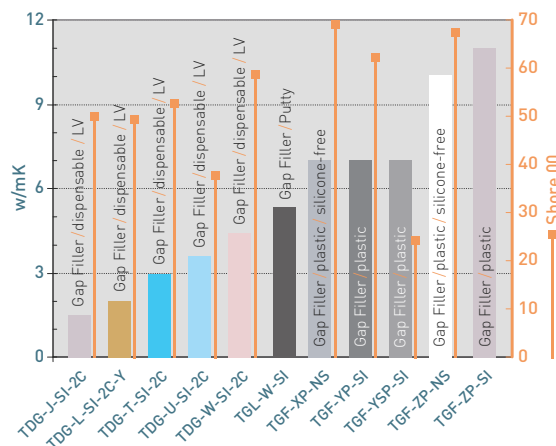
GAP FILLER / VERY SOFT



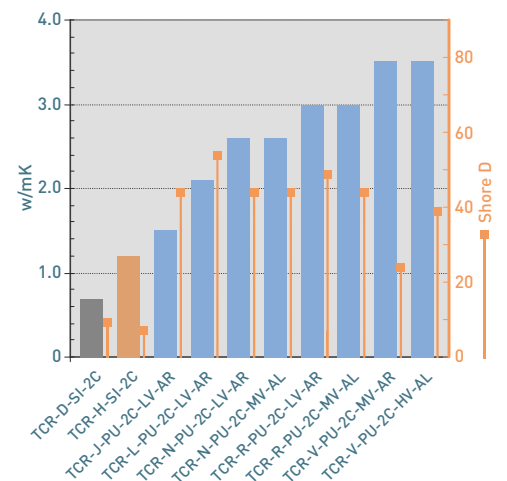
GAP FILLER /
HIGHLY
CONDUCTIVE



GAP FILLER /
PLASTIC/DISPENSABLE



POTTING GELS



PSA FILLER

THERMAL MANAGEMENT

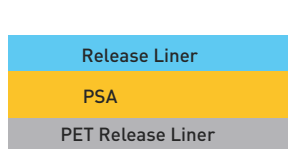
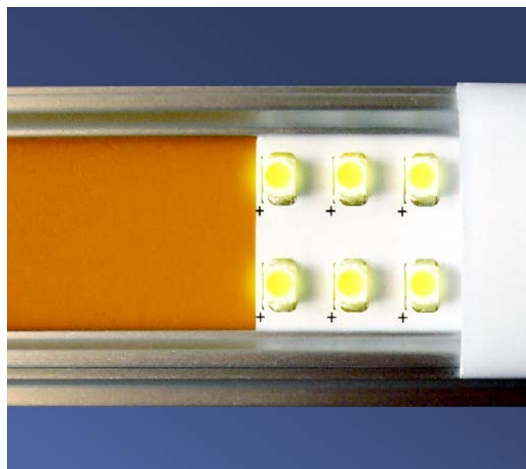
RELIABLE STRONG BONDING

TYPES

- Acrylate or silicone
- Dielectric
- With or without dielectric polymer
- Quick tack or freely repositioned
- Hard or soft
- High or low conformity
- Adhesive combinations

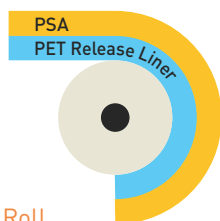
PROPERTIES

- High thermal conductivities (0.7 to 3 W/mK)
- Low thermal resistances (0.2 to 0.8 °C-inch²/W)
- High breakdown voltages (> 2 kV (AC))
- Wide thickness range 0.10 to 3.0 mm
- High shear and peel off strengths
- High temperature resistance and reliability



Sheet

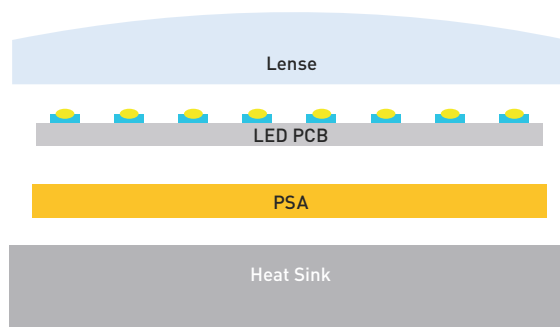
Double release liner
used for punched parts



Roll

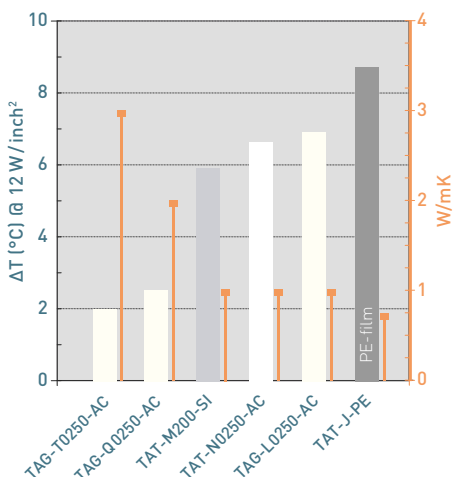
Single release liner
and self wound rolls of
a designated width

- ☐ Manufactured by large and small coating units
- ☐ Processed by slitting, die and rotary punching



PRODUCTS

ΔT DATA



POWER LED THERMAL MANAGEMENT

MAKING YOUR POWER LED SOLUTION RELIABLE AND THERMALLY BEST

THERMAL INTERFACE SOLUTIONS

Suitable for any fixing concept: bonding, screwing, clip fixing

Phase Change films

- ☐ TPC-W-PC
- ☐ TPC-T-AL-CB
- ☐ TPC-R-AL

Phase Change printable

- ☐ TPC-W-PC-M/-E
- ☐ TPC-Z-PC-HT-M/-E

Graphite foil

- ☐ TFO-S-CB

Graphite foil / pyrolytic

- ☐ TFO-Y-PG
- ☐ TFO-ZS-PG

1-part adhesives RTV

- ☐ TAD-I-SI-1C
- ☐ TAD-P-SI-1C

2-part adhesives RTV

- ☐ TAD-I-SI-2C

PSA tapes

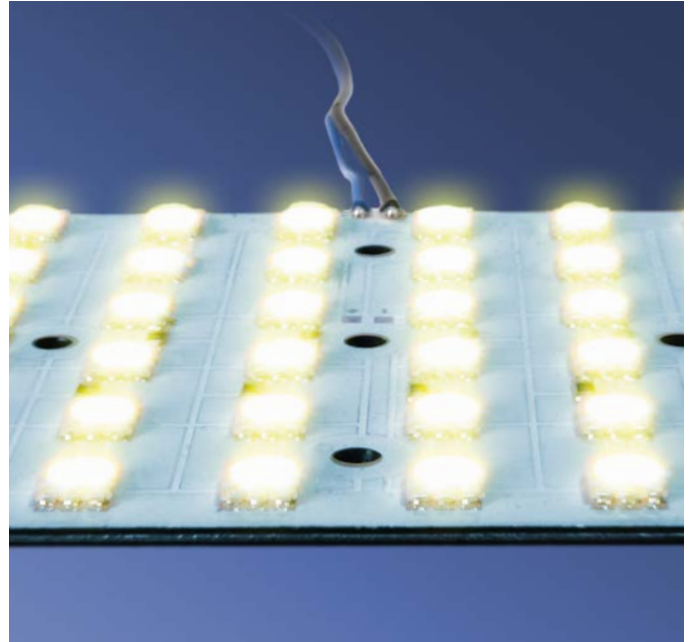
acrylate

- ☐ TAG-L-AC
- ☐ TAG-Q-AC
- ☐ TAG-T-AC
- ☐ TAT-N-AC
- ☐ TAT-J-PE

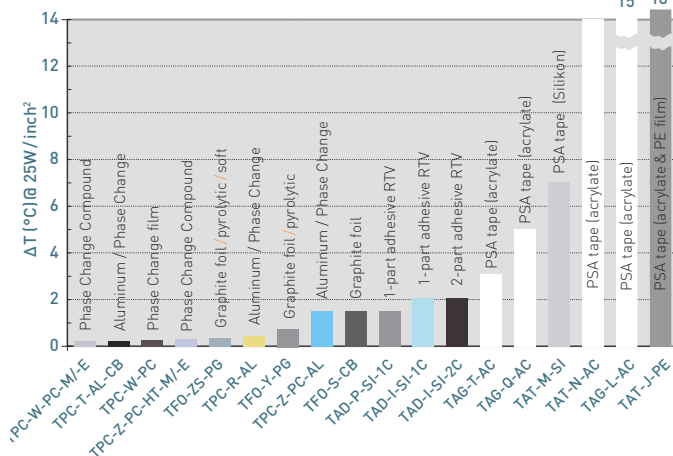
silicone

- ☐ TAT-M-SI

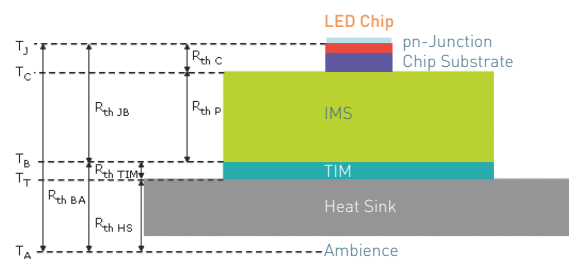
Please contact us as your development partner.



ΔT DATA



CONSTRUCTION DIAGRAM



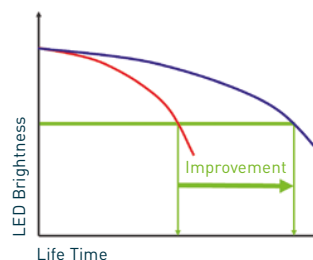
CREATING

- ☐ Maximum thermal contact
- ☐ Minimized thermal resistance
- ☐ Compensating mechanic tolerances
- ☐ Enhancing efficiency

BENEFITS

- ☐ Increasing life time and reliability
- ☐ Ensuring brightness and radiance
- ☐ Pre-applied dry-to-the-touch

BRIGHTNESS / LIFE TIME



POWER MODULES

THERMAL MANAGEMENT

MAKING YOUR POWER MODULE RELIABLE AND THERMALLY BEST

MODULAR CONCEPTS

High Performing Contacting Interface Materials

Phase Change films

- ☐ TPC-W-PC
- ☐ TPC-T-AL-CB
- ☐ TPC-R-AL

Phase Change printable

- ☐ TPC-Z-PC-HT-M/-E
- ☐ TPC-X-PC-NC-HT-M/-E

Graphite foil

- ☐ TFO-S-CB

Graphite foil / pyrolytic

- ☐ TFO-Y-PG
- ☐ TFO-ZS-PG

Silicone foil

- ☐ TEL-Z-SI

- ☐ TEL-ZS-SI

Silicone grease

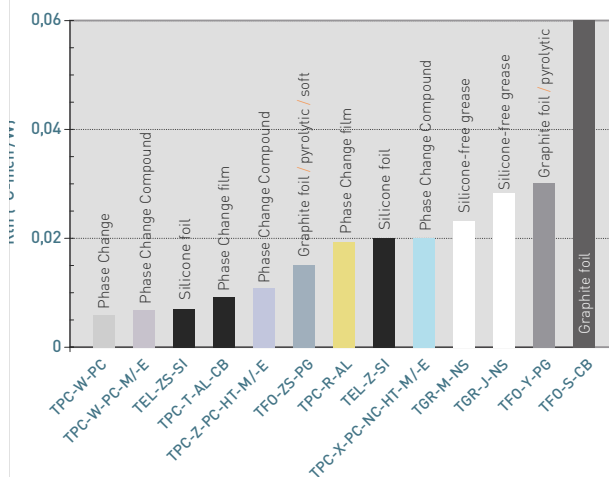
- ☐ TGR-S-SI

Silicone-free grease

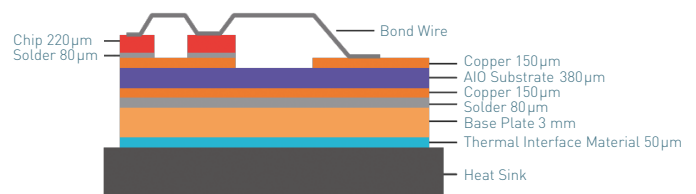
- ☐ TGR-J-NS
- ☐ TGR-M-NS



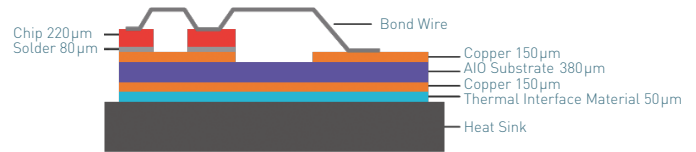
ΔT DATA



CONSTRUCTION DIAGRAM



Typical module configuration with baseplate (Copper)



Typical module configuration without baseplate

CREATING

- ☐ Maximum thermal contact
- ☐ Minimized thermal resistance
- ☐ Compensating mechanic tolerances
- ☐ Enhancing efficiency

BENEFITS

- ☐ Increasing long-term reliability
- ☐ Minimizing chip temperatures
- ☐ Homogenizing chip temperatures
- ☐ Pre-applied dry-to-the-touch



CLIPS

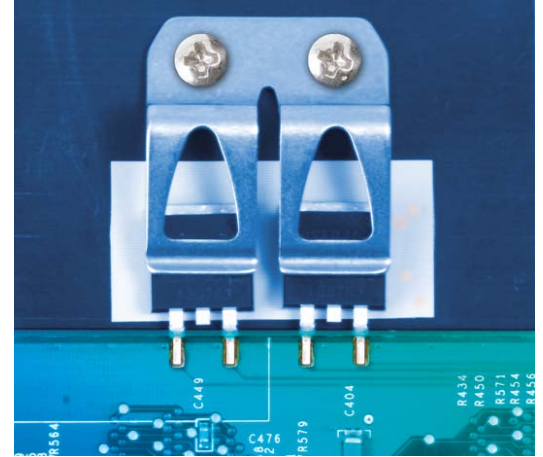
THERMAL MANAGEMENT

CREATING CLOSEST CONTACT

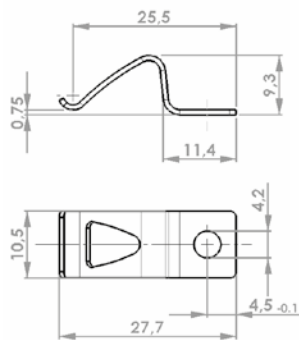
TYPES

- Maximized thermal contact (even at minimum package height)
 - FE-simulation optimised stress behaviour
 - Optimized interaction with our Thermal Interface Materials
 - Mounting friendly design
 - Easy chip identification by apertures
- We design your tailor-made clip solution.

Please contact us as your development partner.

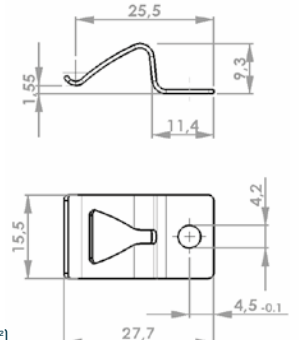


Dimensions



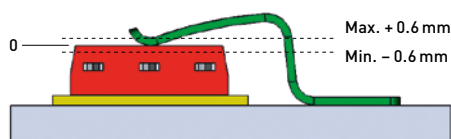
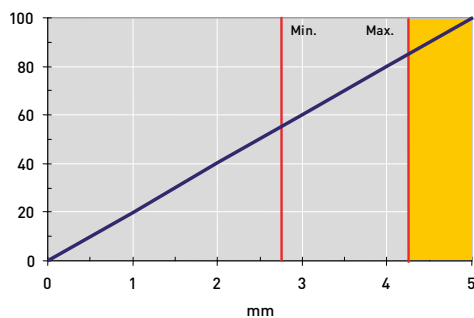
- Force range: ca. 55...85 N
- Pressure range: ca. 35...55 N/cm² (50...80 PSI) for different types of TO 220 packages (Surface area TO 220 approx. 1.6 cm²)

Dimensions

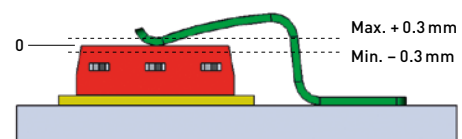
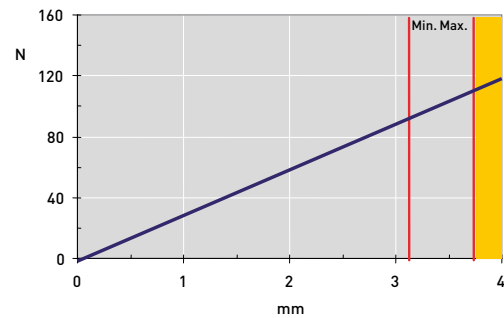


- Force range: ca. 95...110 N
- Pressure range: ca. 28...32 N/cm² (40...47 PSI) for different types of TO 247 packages (Surface area TO 247 approx. 3.4 cm²)

FORCE VS. DEFLECTION



FORCE VS. DEFLECTION



HEATPIPE ASSEMBLIES

THERMAL MANAGEMENT

MAKING YOUR HEATPIPE ASSEMBLY MOST EFFICIENT AND THERMALLY BEST

MODULAR CONCEPTS

High Performing Contacting Interface Materials

Phase Change films

- ☐ TPC-W-PC
- ☐ TPC-T-AL-CB
- ☐ TPC-R-AL

Phase Change printable

- ☐ TPC-W-PC-M/-E
- ☐ TPC-X-PC-NC-HT-M/-E
- ☐ TPC-Z-PC-HT-M/-E

Graphite foil

- ☐ TFO-S-CB

Graphite foil / pyrolytic

- ☐ TFO-Y-PG
- ☐ TFO-ZS-PG

Silicone foil

- ☐ TEL-Z-SI

- ☐ TEL-ZS-SI

Silicone grease

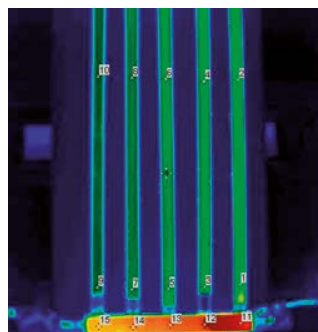
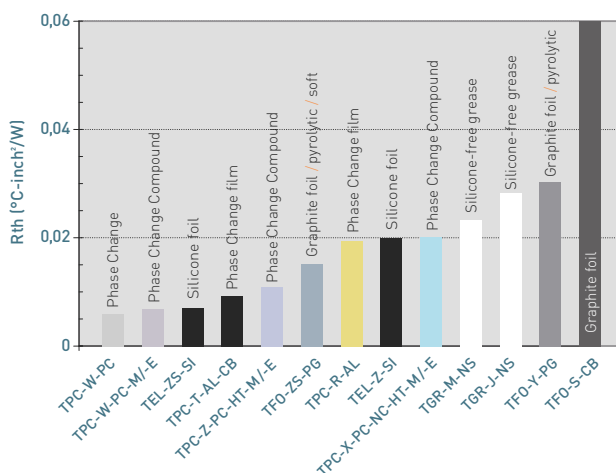
- ☐ TGR-S-SI

Silicone-free grease

- ☐ TGR-J-NS
- ☐ TGR-M-NS



ΔT DATA



CREATING

- ☐ Maximum thermal contact
- ☐ Minimized thermal resistance
- ☐ Compensating mechanic tolerances
- ☐ Enhancing efficiency

BENEFITS

- ☐ Increasing long-term reliability
- ☐ Homogenizing temperatures
- ☐ Pre-applied dry-to-the-touch

THERMO-ELECTRIC MODULES

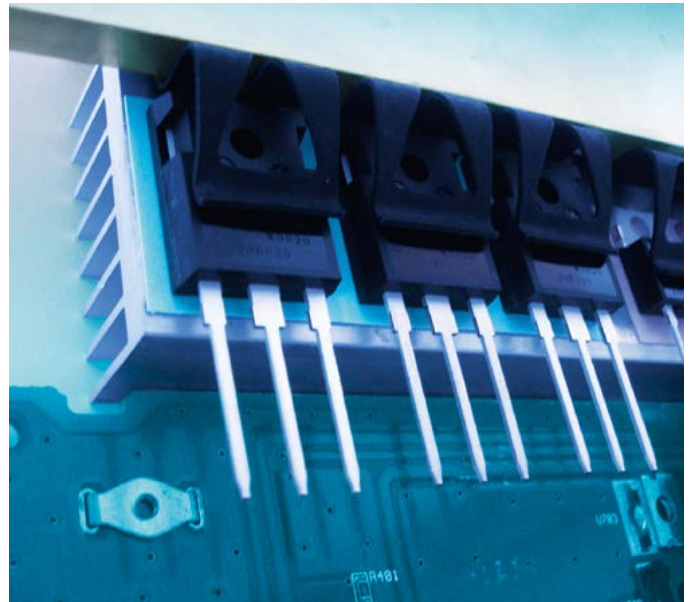
THERMAL MANAGEMENT

MAKING YOUR THERMO-ELECTRIC MODULE MOST EFFICIENT AND THERMALLY BEST

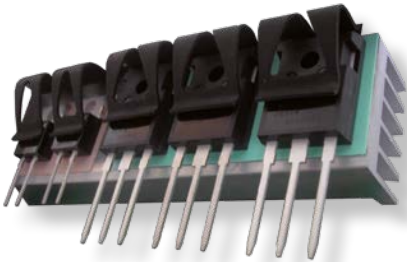
BENEFITS

- Minimized thermal resistance
- Enhanced efficiency
- Lower chip temperatures
- Increased life time

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DISCRETE DESIGN TECHNOLOGY



High Performing Thermally Conductive / Dielectric Films

Silicone foils

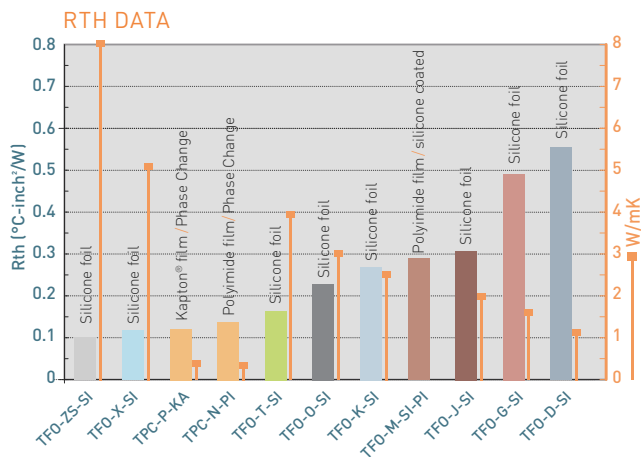
- ☐ TFO-ZS-SI (8 W/mK)
- ☐ TFO-X-SI (5 W/mK)
- ☐ TFO-T-SI (4 W/mK)
- ☐ TFO-O-SI (3 W/mK)
- ☐ TFO-K-SI (2.5 W/mK)
- ☐ TFO-J-SI (2 W/mK)
- ☐ TFO-G-SI (1.6 W/mK)
- ☐ TFO-D-SI (1.2 W/mK)

Polyimide film / Kapton® film Phase Change coated

- ☐ TPC-N-PI
- ☐ TPC-P-KA

Polyimide film / Silicone coated

- ☐ TFO-M-SI-PI



MODULAR CONCEPTS



High Performing Contacting Interface Materials

Phase Change films

- ☐ TPC-W-PC
- ☐ TPC-T-AL-CB
- ☐ TPC-R-AL

Graphite foil

- ☐ TFO-S-CB

Silicone foil

- ☐ TEL-Z-SI

Silicone grease

- ☐ TGR-S-SI

Phase Change printable

- ☐ TPC-W-PC-M/-E
- ☐ TPC-X-PC-NC-HT-M/-E
- ☐ TPC-Z-PC-HT-M/-E

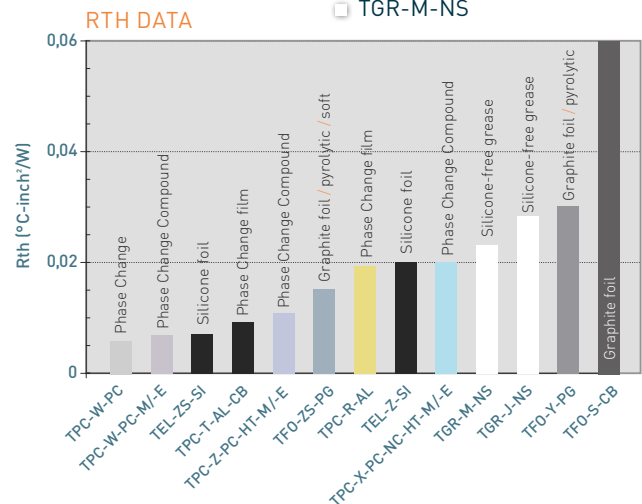
Graphite foil / pyrolytic

- ☐ TFO-Y-PG
- ☐ TFO-ZS-PG

TEL-ZS-SI

Silicone-free grease

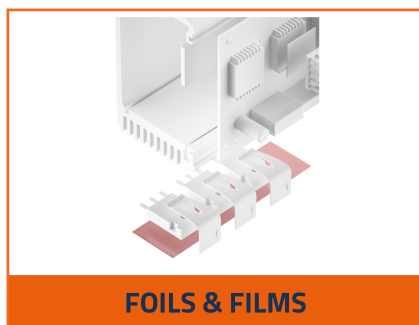
- ☐ TGR-J-NS
- ☐ TGR-M-NS



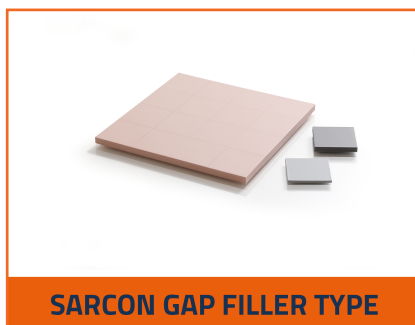


KØLEPROFILER

VORES PRODUKTSORTIMENT INKLUDERER:



FOILS & FILMS



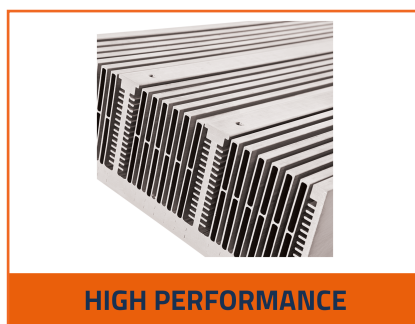
SARCON GAP FILLER TYPE



TERMISK LEDENDE MATERIALE



SAMMENSATTE



HIGH PERFORMANCE



KØLEPROFILER

VI FØRER PRODUKTER INDENFOR KATEGORIERNE:



AUTOMATIK



**HVAC & BYGNINGS-
AUTOMATIK**



ELVARME

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