

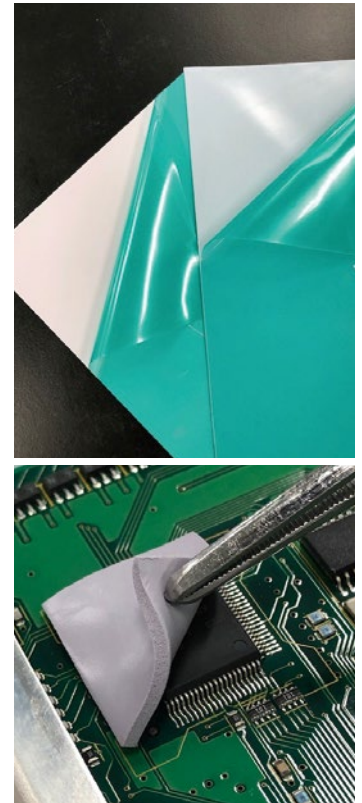
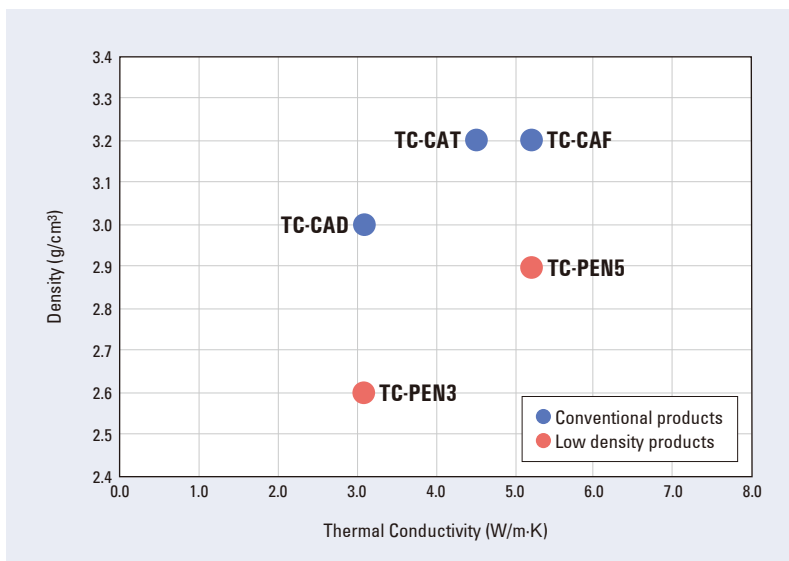
Low Density and Soft Thermal Conductive Pad

TC-PEN Series

It is a product with significantly reduced density. These silicone pad have excellent thermal conductivity and workability.

1 Features

- 1) The density is reduced while maintaining the same thermal conductivity and handleability as conventional products.
- 2) Suitable for cooling of in-vehicle equipment and other parts that require weight reduction.



2 Applications

- 1) Large area parts such as lithium-ion batteries
- 2) Devices with non-uniform surfaces

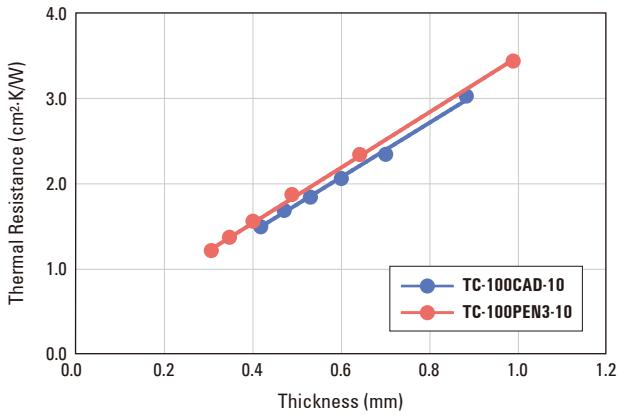
3 General properties

| Parameter | Parameter | Grade | TC-100PEN3-10 | TC-100PEN5-20 |
|-----------------------------|-----------|-----------------------|--|--|
| Color | — | — | Light purple | Blue |
| Size | mm | — | 300 x 400 | 300 x 400 |
| Structure | — | — | Single layer | Single layer |
| Thickness | mm | — | 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0 | 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0 |
| Density at 23°C | g/cm³ | JIS K 6249 | 2.6 | 2.9 |
| Hardness Asker C | — | — | 10 | 20 |
| Delectric Breakdown Voltage | kV/mm | JIS K 6249 in the air | 15 | 12 |
| Thermal Conductivity | W/m-K | ISO 22007-2 | 3.1 | 5.2 |
| Flame-Retardance | UL94 | — | V-0 equivalent | V-0 equivalent |

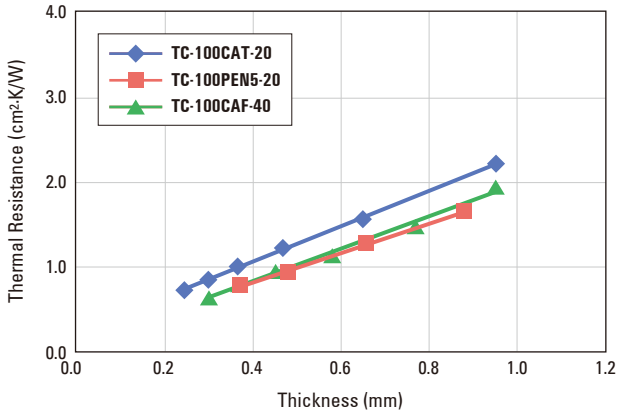
(Not specified values)

4 Thickness and Thermal resistance

Comparison between TC-PEN3-10 and conventional products

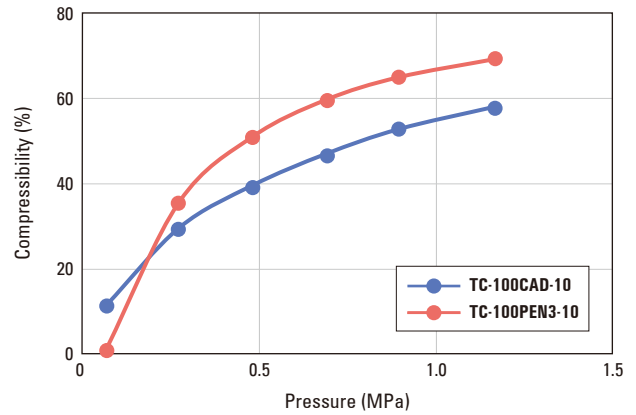


Comparison between TC-PEN5-20 and conventional products

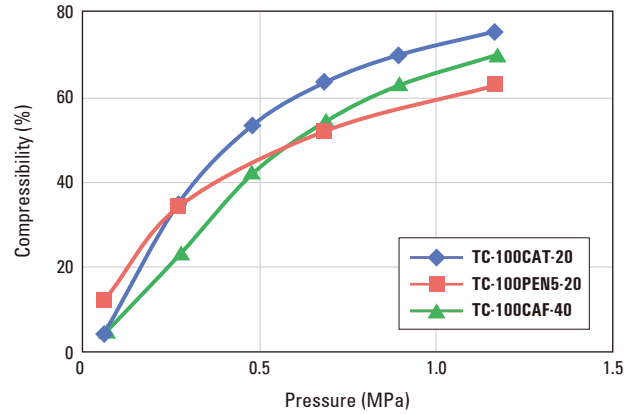


5 Pressure and compressibility

Comparison between TC-PEN3-10 and conventional products



Comparison between TC-PEN5-20 and conventional products



6 Handling precaution

- 1) Products should be stored in a dry place out of direct sunlight.
- 2) Avoid contact with residual solvents or oils as they may deteriorate the properties of the products.
- 3) For better results, the substrate surface should be cleaned and dried to remove any dirt, moisture or oils before application.
- 4) Prior to using the product with a thermal interface grease, test a sample with a small amount to determine compatibility.
- 5) Keep out of reach of children.
- 6) Be sure to read the Safety Data Sheets (SDS) for these products before use. SDS are available from the Shin-Etsu Silicone website. If the SDS is not listed on the website, please contact the sales department.

CAUTION

- The data and information presented in this catalog may not be relied upon to represent standard values. Shin-Etsu reserves the right to change such data and information, in whole or in part, in this catalog, including product performance standards and specifications without notice.
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- For detailed information regarding safety, please refer to the Safety Data Sheet (SDS). Please download the SDS from our website. If the SDS is not listed on the website, please contact the sales department.
SDS download URL: <https://www.shinetsusilicone-global.com/support/sdstds/>
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