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

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

Comparison between TC-PEN3-10 and conventional products

5 Pressure and compressibility

Comparison between TC-PEN3-10 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) Please read the Safety Data Sheets (SDS) before use. SDS can be obtained from our Sales Department.

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