How to Select Your Heating Tape

Use the following guidelines to determine which heating tape will fit your application.

**Guidelines To Select Heating Tape**

**Moisture or Chemical Resistant**
- If moisture or chemicals will be present then Silicone Rubber extruded heating tape or moisture resistant insulation is recommended to heat your application.

**Temperature Requirements**
- Silicone Rubber extruded heating tapes are rated up to a maximum exposure temperature 232°C (450°F).
- Heavy and Standard Insulated heating tapes series are rated up to a maximum exposure temperature of either 482°C (900°F) or 760°C (1400°F).
- Heating cords are rated up to a maximum exposure temperature of either 482°C (900°F) or 760°C (1400°F).

<table>
<thead>
<tr>
<th>Silicone Rubber (BS0)</th>
<th>Standard Insulated (B00 and BW0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy insulated (BIH and BWH)</td>
<td>Heating Cords (HTC and HWC)</td>
</tr>
</tbody>
</table>

**Length and Width of Heating Tape**
- The minimum length of heating tape needed for an application is equal to the length of the object. This will allow the tape to lay flat across the surface for the length of the system.
- For spiral wrapping, you will need to calculate the circumference of the object (Circumference=diameter x \( \pi \)) then multiply by the length of your object.

NOTE: The closer the pitch of the heating tape the longer the tape you will need to cover the entire surface of the object when spiral wrapping the heating tape. (minimum pitch distance is 1/8”)
- For objects 1” diameter or less it is recommended to use 1/2” width heating tape to ensure direct contact.
- For larger diameters a wider tape may be used to maximize coverage.
Temperature Controlling Device

- A temperature controlling device is required for all heating tapes. Some models (HSTAT, BSTS, and BSAT) come equipped with a built-in temperature controller. BriskHeat offers a wide range of temperature control options to meet your exact requirements.

Insulation

- Insulation can be used to meet temperature requirements. Adding insulation to cover your heating tape significantly reduces the wattage needed to achieve the required change of temperature.

NOTE: It is recommended to use at least 1/4” of insulation for every 50°C change in temperature. This will lower the amount of wattage needed to meet your temperature requirements. The maximum amount of insulation to be used is 2-3 inches.

Heating tapes come in a wide range of sizes and properties. Use the table below to determine which heating tape is correct for your application.

<table>
<thead>
<tr>
<th>Product Series</th>
<th>Silicone Rubber</th>
<th>Cloth Insulated</th>
<th>Cord</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HSTAT BSTS BSAT BSO BSO-G CTL BIH BIH-G BWHD BWH B00 BW0 HTC HWC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Exposure Temperature</td>
<td>(1)</td>
<td>232°C</td>
<td>232°C</td>
</tr>
<tr>
<td>Moisture and Chemical Resistant</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Suitable for Electrical Conductive Surfaces</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Integral tie Downs</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Grounded</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Built-in-Control</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

Example Application: 12’ gas line, 2”ø, 2 hour heat-up with a Δt 56°C (100°F)

Impact of Using Insulation

Required Wattage

Example Application: 12’ gas line, 2”ø, 2 hour heat-up with a Δt 56°C (100°F)

Silicone Rubber Cloth Insulated Cord

(1) Adjustable Thermostat: 10°C - 218°C (50°F - 425°F)
(2) Fixed Thermostat: 16°C (60°F)

Need help with your application? Contact BriskHeat and we will do a heat loss calculation for you.