RUAG Space developed a high purity, low absorptivity aluminum tape for use in cryogenic applications: COOLCAT 1050. It is applied directly onto 4K surfaces to provide lowest absorption of thermal radiation.

- Composed of an 80 µm high purity (99.5 %) aluminum foil carrier and a pressure sensitive acrylic adhesive
- Excellent reflective and therefore insulation quality
- Most recommended for covering surfaces with high absorptivity of thermal radiation like stainless steel or unfinished aluminum in a cryogenic environment such as helium vessels of superconducting magnets or any other cold mass
- The tape meets the standard outgassing requirements for satellites of the European Space Agency
- Especially developed for and tested at a temperature of 4K

Infrared absorptance at 4K for radiation temperature (low value required for good radiation insulation)
Application of COOLCAT 1050

Tested bonding strength on stainless steel at 4K

- Peel strength: 2.9 N / 12 mm width
- Shear strength: 104 N / 144 mm²

Dimensions

The tape is wound on a plastic core. The adhesive of the tape is protected either by release liner or by a coating not containing any silicon on the front side of the tape.

<table>
<thead>
<tr>
<th>Article no.</th>
<th>Dimensions</th>
<th>Packing Unit</th>
<th>Liner</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL108430</td>
<td>50 m x 50 mm</td>
<td>18 rolls</td>
<td>no</td>
</tr>
<tr>
<td>PL108431</td>
<td>50 m x 50 mm</td>
<td>18 rolls</td>
<td>yes</td>
</tr>
<tr>
<td>PL108432</td>
<td>50 m x 100 mm</td>
<td>6 rolls</td>
<td>yes</td>
</tr>
<tr>
<td>PN100148</td>
<td>Tape dispenser</td>
<td>Automatically winds up the release liner (for up to 50 mm wide tape)</td>
<td></td>
</tr>
</tbody>
</table>

Contact

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