Heat resistant adhesive tape
No.5919ML

Outline

Nitto Denko No.5919ML is a double-coated adhesive tape developed by our own original adhesive technology that uses no base material. No.5919ML offers superior heat resistance and adhesive strength. The release liner has also heat resistant property so the tape can be used in the soldering process without removing the release liner.

Structure

No.5919ML

[ Tape thickness: 0.05mm ]

* Double release liner type : No.5919MLW

Features

- Offers superior binding.
- Offers high heat resistance.
- Can be used in the soldering process without removing the release liner.
  (Employs heat resistant release liner.)
- The six hazardous materials restricted by the RoHS directive are not compounded.

Applications

- Fixing of FPC and stiffener or FPC and housings
- Other applications requiring heat resistance

Standards size

<table>
<thead>
<tr>
<th>Tape thickness (mm)</th>
<th>Width (mm)</th>
<th>Length (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05</td>
<td>50 - 500</td>
<td>100</td>
</tr>
</tbody>
</table>

For more details contact the person in charge.
## Properties

### 180 degree peeling adhesion

<table>
<thead>
<tr>
<th>Substrates</th>
<th>No.5919ML</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless steel plate</td>
<td>8.5</td>
</tr>
<tr>
<td>Aluminum plate</td>
<td>8.0</td>
</tr>
<tr>
<td>Polyimide film</td>
<td>11.8</td>
</tr>
<tr>
<td>Glass epoxy plate</td>
<td>11.0</td>
</tr>
<tr>
<td>PET film</td>
<td>11.0</td>
</tr>
<tr>
<td>Bakelite plate</td>
<td>10.8</td>
</tr>
</tbody>
</table>

(Units: N/20mm)
Application conditions:
1 pass back and forth with 2kg rubber roller
Measurement temperature: 23 degree C x 50% RH
Peeling speed: 300 mm/min

### Holding power (displacement in high temperature environment)

<table>
<thead>
<tr>
<th>Ambient temperature</th>
<th>No.5919ML</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 degree C. (after an hour)</td>
<td>0.1</td>
</tr>
<tr>
<td>100 degree C. (after an hour)</td>
<td>0.1</td>
</tr>
</tbody>
</table>

(Units: mm)
Application conditions:
1 pass back and forth with 5kg rubber roller
Substrate: Bakelite plate
Tape size: 10 x 20mm
Load: 4.9N (500 g)

### 180 degree peeling adhesion before and after Reflow (soldering)

<table>
<thead>
<tr>
<th>Before Reflow</th>
<th>No.5919ML</th>
</tr>
</thead>
<tbody>
<tr>
<td>After Reflow (peak at 250 degree C.)</td>
<td>8.5</td>
</tr>
<tr>
<td>After Reflow (peak at 260 degree C.)</td>
<td>8.5</td>
</tr>
</tbody>
</table>

(Units: N/20 mm)
Application conditions:
1 pass back and forth with 2kg rubber roller
Substrate: Stainless steel plate
Reflow conditions: Each profile
Peeling speed: 300mm/min

### Peeling force of release liner before and after Reflow (soldering)

<table>
<thead>
<tr>
<th>Before Reflow</th>
<th>No.5919ML</th>
</tr>
</thead>
<tbody>
<tr>
<td>After Reflow (peak at 250 degree C.)</td>
<td>2.1</td>
</tr>
<tr>
<td>After Reflow (peak at 260 degree C.)</td>
<td>2.9</td>
</tr>
</tbody>
</table>

(Units: N/50 mm)
Peeling direction: 90 degree
Reflow conditions: Each profile
Peeling speed: 300mm/min

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Notes: This data represents examples of measured values, and not guaranteed values. They do not guarantee compatibility with the applications described in these documents. Please confirm compatibility with your application prior to use. We retain all rights, including copyrights, for the contents of these documents. Copying, reprinting and use for purposes other than originally intended are strictly prohibited without our prior expressed permission. Contact details are provided at the end of this document. Please do not hesitate to contact us for any inquiry.
This data represents examples of measured values by using our own test equipment. When using a tape with a release liner for soldering, we strongly recommend you to test at reflow equipment and determine the suitability of this product before adopting it on a commercial scale. If you have any questions concerning usage method, contact a person in charge of publication.
Precautions when using

● Remove all oil, moisture and dirt from the surface of the substrate before applying.
● Since the tape is pressure-sensitive adhesive, be sure to apply enough pressure with a roller or press when applying. Otherwise it might be affected to its properties and appearance.
● The tape may not adhere well to extremely uneven or distorted surfaces. Enough Leveling off the surface should be required before applying.
● It takes certain time to get full adhesive strength after applying, keep away the tape from any stress for a several hours after applying.
● If IR reflow peak temperature exceeds 260°C or if exposed to 260°C or less for an extended period of time, the release liner may deteriorate and become broken, or the required peeling force may increase resulting in the release liner being difficult to peel off.
● The tape is basically designed to withstand IR reflow one time. It may not be able to withstand IR reflow two or more times. Even if exposed to 260°C or less, the release liner may deteriorate and become broken, or the required peeling force may increase resulting in the release liner being difficult to peel off. Be sure to check the service temperature range before attempting to use.
● You should avoid peeling off the release liner just after IR reflow as the release liner may deteriorate and become broken. Peeling off the release liner after taking enough time at room temperature.

Precautions when storing

● Be sure to keep the tape in its box when not using.
● Keep in a cool dark place not exposed to direct sunlight.

Safety precautions

WARNING

● Make sure the product is suitable for the application (objective and conditions) before attempting to use. The tape may come off depending on the substrate to which it is applied or conditions under which it is applied.
● Use in combination with another method of joining if there is possibility of an accident.

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Nitto Denko Corporation