Double-coated adhesive tape
No.501L

Outline

Nitto No.501L is a double-coated adhesive tape consisting of flexible non-woven fabric impregnated with acrylic adhesive. The tape is suitable for laminating processes for all kinds of foam, such as ether or ester based urethane foam. It is ideal for work involving punching and is easy to process.

Structure

![Diagram of No.501L](image)

* "Non-woven fabric" is classified under a law called Customs Act of Fixed Rate Chapter 48 "Paper and paperboard; articles of paper pulp, of paper or of paperboard".

Features

● Excellent adhesion to rough surfaces.
● Offers superior adhesion at low temperatures and exhibits stable performance even during the winter.
● Excellent repelling resistance, also preventing lifting on curved edges of foam, etc.
● The six hazardous materials restricted by the RoHS directive are not compounded.

Applications

● Bonding of various types of foam
● Used for application to urethane foam, etc.

Sizes

<table>
<thead>
<tr>
<th>Tape thickness (mm)</th>
<th>Width (mm)</th>
<th>Length (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.16</td>
<td>5 - 1,050</td>
<td>50</td>
</tr>
</tbody>
</table>

For details contact the department in charge of the product in question.

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Properties

● 180 degree peeling adhesive strength for each substrate

<table>
<thead>
<tr>
<th>Substrate</th>
<th>No.501L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless steel plate</td>
<td>10.0</td>
</tr>
<tr>
<td>Aluminum plate</td>
<td>10.5</td>
</tr>
<tr>
<td>ABS plate</td>
<td>9.5</td>
</tr>
<tr>
<td>Acrylic plate</td>
<td>10.5</td>
</tr>
<tr>
<td>Polypropylene plate</td>
<td>7.5</td>
</tr>
</tbody>
</table>

(Unit: N/20 mm)

Tape area: 20mm width
Lining material: PET #25
Pressing condition: 1 pass back and forth with 2-kg roller at 23 degree C, 50%RH
Applying condition: 23 degree C, 50%RH x 30min
Peeling speed: 300 mm/min
Peeling angle: 180 degree
Measurement temperature: 23 degree C, 50%RH

● Dependency of adhesive strength of temperature

[Ether based urethane foam]

(Unit: N/20 mm)

Lining material: PET #25
Pressure conditions: Foam thickness 90% compression
Pressure temperature: 23°C
Setting/Measurement temperature: 0, 23, 80°C
Peeling speed: 300 mm/min
Foam thickness: 5 mm
Peeling angle: 180°
Test method: 180° peeling method

[Ester base urethane foam]
## Properties

### 180° peeling adhesive strength under low temperature (0°C)

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Foam type</th>
<th>23°C</th>
<th>80°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS</td>
<td>Ether urethane foam</td>
<td>○</td>
<td>○</td>
</tr>
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### Repelling resistance (for various types of foam)

Pressure temperature: 23°C  
Measurement temperature: 23, 80°C  
Pressure conditions: Foam thickness 90% compression  
Foam thickness: 10 mm  
Tape width: 20 mm  
Evaluation: Floating/peeling after min. of 100 hrs  

- **O**: No peeling

### Repelling resistance (at low pressure)

Pressure temperature: 23°C  
Measurement temperature: 23, 80°C  
Pressure conditions: Foam thickness 50% compression  
Foam thickness: 10 mm  
Tape width: 20 mm  
Evaluation: Floating/peeling after min. of 100 hrs  

- **O**: No peeling

### Holding strength

<table>
<thead>
<tr>
<th>Sample</th>
<th>40°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.501L</td>
<td>1.3</td>
</tr>
</tbody>
</table>

(Unit: N/20 mm)  
Lining material: PET #25  
Pressure conditions: Foam thickness 90% compression  
Setting/measurement temperature: 0°C  
Peeling speed: 300 mm/min  
Foam thickness: 5 mm  
Test method: 180° peeling method

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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.

Precautions when storing

● Please be sure to keep the tape in its box when not using.
● Please keep in a cool and dark place away from 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.

Published in March 16, 2015