

Double-coated adhesive tape

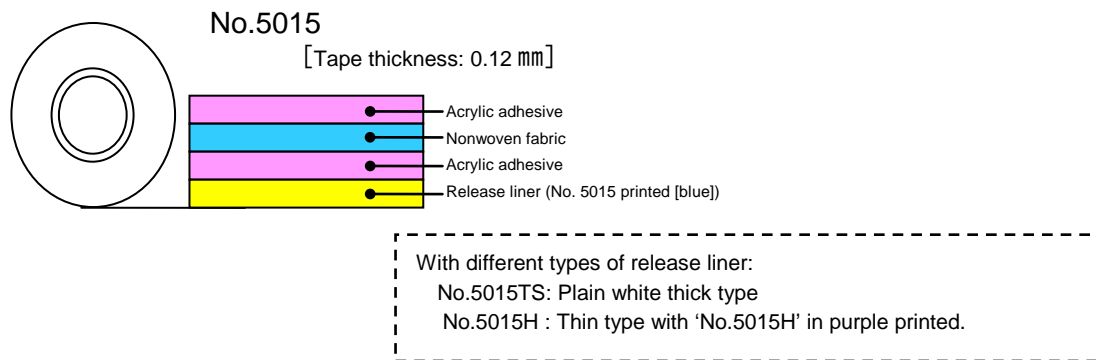
# No.5015

## Outline

Nitto Denko No. 5015 is a double-coated adhesive tape consisting of pressure-sensitive adhesive with a flexible nonwoven fabric.

The tape adheres strongly to metals and plastics and has particularly good repulsion property.

## Structure



## Features

- Wide usage range  
(Offers good adhesive strength for various substrates including metals and plastics.)
- Can be used in a wide range of temperatures  
(Offers superior adhesive strength for a wide range of temperatures, from low to high.)
- High repulsion property
- 6 restricted substances by RoHS are not contained.
- No.5015 and No.5015U is an UL969 certified product. [File no. MH13557]  
\*The appearance and properties of No.5015U are the same as No.5015.

## Applications

- For general bonding of metal plates, plastic plates and foam etc.

## Sizes

Tape thickness (mm)	Width (mm)	Length (M)
0.12	3~1,200	50

For details, please contact the department in charge of the product.

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## Properties

### ● 180° peeling adhesive strength for each substrate

Substrate	No.5015
Stainless steel plate	16.0
Aluminum plate	15.5
PP plate	12.5
PC plate	13.5
ABS plate	13.5
PVC plate	16.0
PSt plate	13.5
POM plate	10.0
PE plate	7.3

(Unit: N/20 mm)

Sample width: 20mm

Lining material: PET #25

Pressing condition:

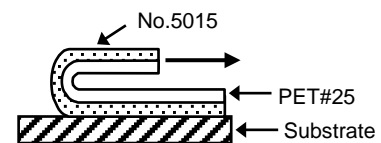
 1 pass back and forth with a 2 kg roller  
 at 23degreeC/50%RH

Applying condition: 23degreeC/50%RH x 30min

Peeling speed: 300 mm/min

Peeling angle: 180 degree

Measurement temperature: 23degreeC/50%RH



### ● 180° peeling adhesive strength for each temperature

Substrate	Temperature	No.5015
Stainless steel plate	0 degree C	21.0
	23 degree C	16.0
	40 degree C	13.0
	60 degree C	12.0
	80 degree C	10.5
ABS plate	0 degree C	19.0
	23 degree C	13.5
	40 degree C	12.0
	60 degree C	11.0
	80 degree C	11.5
PP plate	0 degree C	13.0
	23 degree C	12.5
	40 degree C	11.5
	60 degree C	11.0
	80 degree C	11.0

(Unit: N/20 mm)

Substrates: Stainless steel plate,  
ABS plate, PP plate

Sample width: 20mm

Lining material: PET #25

Pressing condition:

 1 pass back and forth with a 2 kg  
 roller at 23degreeC/50%RH

Applying condition:

23degreeC/50%RH x 30min

Peeling speed: 300 mm/min

Peeling angle: 180 degree

Measurement temperature:  
0, 23, 40, 60, 80 degree C

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●Holding power

Temperature	No.5015
40 degree C	0.1
60 degree C	0.2
80 degree C	0.3

(Unit: mm/hr)

Substrate: Phenolic resin plate

Pressing temperature: 23degreeC/50%RH

Applying condition:

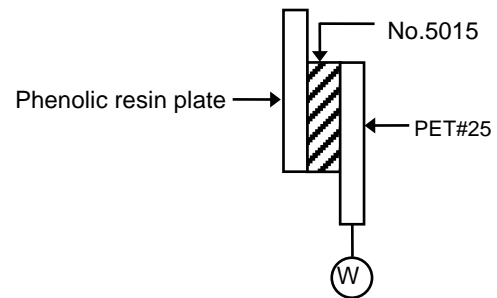
Measurement temperature x 30min

Measurement temperature: 40, 60, 80 degree C

Application area: 20 mm x 10 mm

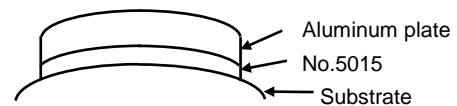
Load: 4.9N(500g)

Loading time: One hour



●Repulsion properties

Substrate	No.5015
ABS plate	<1
PP plate	<1
PSt plate	<1



(Unit: mm/72 hrs)

Tape area: 20 mm x 180 mm

Substrate size: 30 mm x 200 mm

Repulsion conditions: Sample is curved to 190 mm length

Measurement method: Measure the floating height of the edge after 72 hours at 70 degree C

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● 180 degree peeling adhesive strength

- Leave the sample under each condition after application. (Durability)

Conditions		No.5015
Initial (23degreeC/50%RH x 30 min)		16.0
-30 degree C x 30 days		17.3
80 degree C	1 day	20.8
	7 days	22.8
	14 days	28.0
	30 days	28.3
40 degree C /92%RH	14 days	19.0
	30 days	18.8
60 degree C/90 %RH x 30 days		24.7
Heat shock [100 cycles] <sup>*1</sup>		23.7
Heat cycle [40 cycles] <sup>*2</sup>		22.2

(Unit: N/20mm)

Substrate: Stainless steel plate

Backing material: PET#25

Pressing condition:

1 pass back and forth with a 2kg roller  
at 23 degree C/50%RH

Application condition: See the left table

Peeling speed: 300 mm/min

Peeling angle: 180 degree

Measurement temperature: 23degreeC/50%RH

\*1: Heat shock condition

[-40 degreeC x 30min <-> 90 degreeC x 30min] x 100 cycles

\*2: Heat cycle condition

[-20degreeCx6hr->(1hr)->60degreeC/95%RHx6hr->(1hr)->]  
x 40 cycles

● 180 degree peeling adhesive strength - Aging after pressure bonding

Aging	No.5015
1 min later	12.0
30 min later	16.0
24 hrs later	17.0
48 hrs later	17.0
72 hrs later	17.2
168 hrs later	17.6

(Unit: N/20mm)

Substrate: Stainless steel plate

Sample width: 20mm

Lining material: PET#25

Pressing condition:

1 pass back and forth with a 2 kg roller  
at 23 deg C/50%RH

Application condition:

23 deg C/50%RH x 1 min, 30 min, 24 hrs, 48 hrs,  
72 hrs, 168 hrs

Peeling speed: 300 mm/min

Peeling angle: 180 degree

Measurement temperature: 23 degree C/50%RH

● 180° peeling adhesive strength for each application pressure

Application pressure	No.5015
0.1 kg roller	14.4
0.5 kg roller	15.6
2 kg roller	16.0
5 kg roller	16.5

(Unit: N/20mm)

Substrate: Stainless steel plate

Lining material: PET#25

Pressing condition:

1 pass back and forth with a 0.1kg, 0.5kg, 2 kg,  
5kg roller at 23 deg C/50%RH

Applying condition: 23degreeC/50%RH x 30min

Peeling speed: 300 mm/min

Peeling angle: 180 degree

Measurement temperature: 23 degree C/50%RH

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## Precautions when using

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- 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

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- 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

 <b>WARNING</b>
<ul style="list-style-type: none"><li>● 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.</li><li>● Use in combination with another method of joining if there is possibility of an accident.</li></ul>

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