

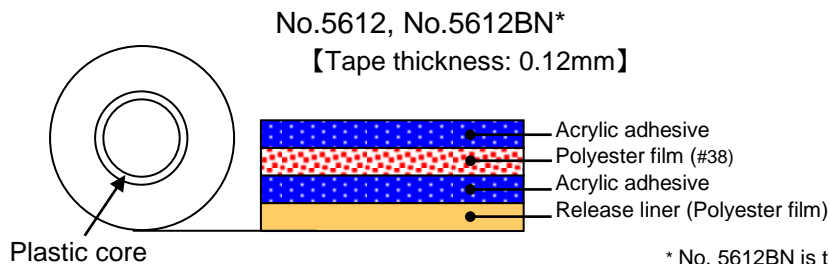
Double-coated adhesive tape

# No.5612, No.5612BN

## Outline

Nitto Denko No. 5612 and No. 5612BN are 0.12 mm-thick double-coated adhesive tapes consisting of a polyester film base coated with acrylic adhesive. Employing a polyester film release liner and plastic core, the double-coated adhesive tapes are ideal for bonding applications such as peripheral parts of LCD backlight modules.

## Structure



\* No. 5612BN is the black version of No. 5612.  
Uses black polyester film.

## Features

- Offers strong bonding for housing, reflective sheets used for LCD backlight modules.
- Uses polyester release liner and plastic core. Tape structure minimizes dust emission.
- Adheres well to plastics.
- Halogen-free type. (We do not use chloride compounds on purpose for this product.)
- The ten hazardous materials restricted by the RoHS directive are not compounded.

## Applications

- Fixing of reflective sheets used for LCD backlight modules for digital cameras and cellular telephones.
- Fixing of parts for compact home appliances

## Standards Size

Tape thickness (mm)	Width (mm)	Length (m)
0.12	16~500	100

For more information, please contact us.

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### Properties

● 180° peeling strength by substrate

Substrate	No.5612, No.5612BN
ABS plate	16.5
Polystyrene plate	21.0
Acrylic plate	23.0
Polycarbonate plate	20.5
Polyester film	22.0
Stainless steel plate	20.5
Aluminum plate	21.5
Glass plate	21.8
Polyimide	19.0

(Unit: N/20mm)

Lining material: PET#25

Peeling speed: 300mm/min

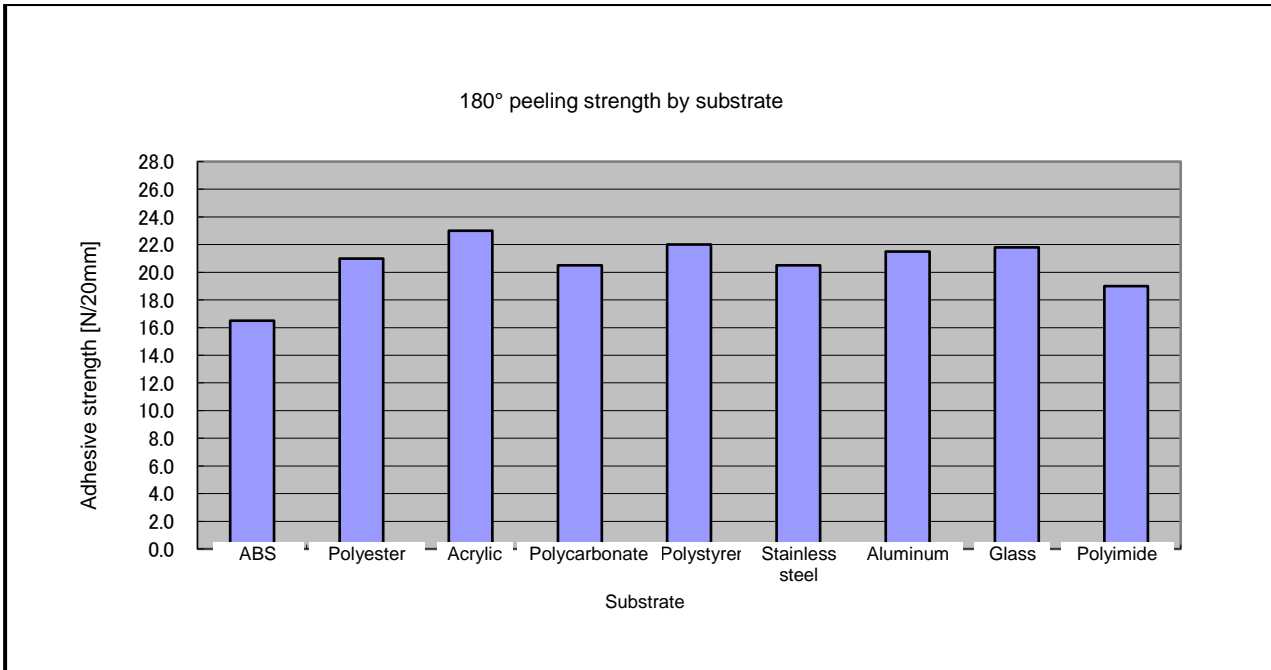
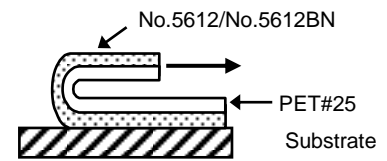
Peeling angle: 180°

Measurement temperature: 23°C, 50%RH

Pressure application conditions:

1 pass back and forth with 2-kg roller

<Test method>



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### Properties

● 180° peeling strength by temperature

Temperature	No.5612, No.5612BN
0°C	21.2
10°C	21.6
23°C	20.5
40°C	17.9
60°C	14.7
80°C	10.6

(Unit: N/20mm)

Lining material: PET#25

Peeling speed: 300mm/min

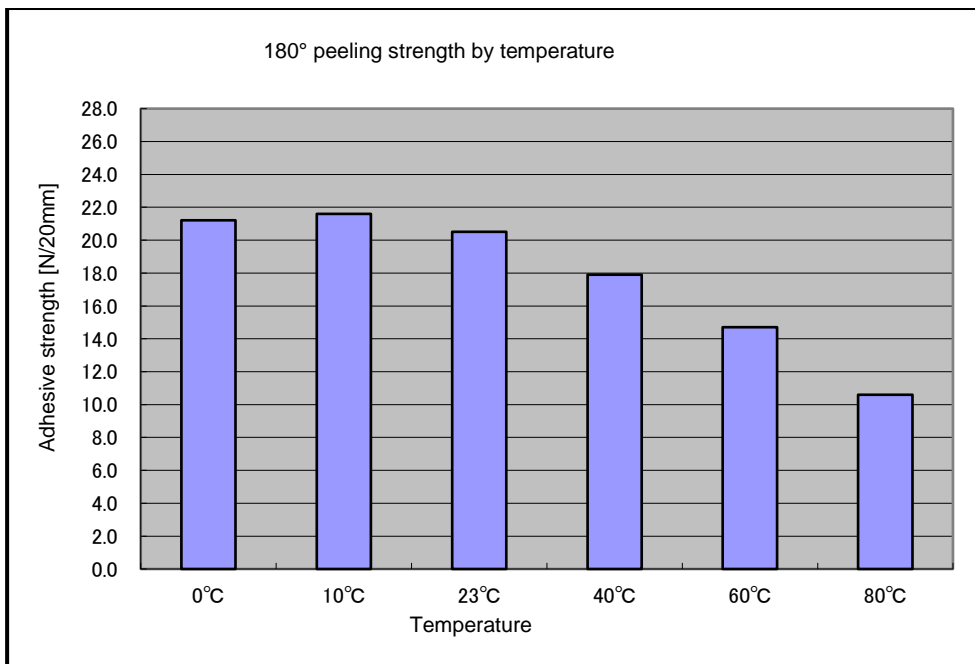
Peeling angle: 180°

Measurement temperature: 0°C, 10°C, 23°C, 40°C,  
60°C, 80°C

Application under various temperatures

→ Measurement under various temperatures

Substrate: Stainless steel plate



● 180° peeling strength at low temperatures (applied at 23°C and measured at 0°C and -10°C)

Substrate	Temperature	No.5612, No.5612BN
Stainless steel plate	0°C	22.6
	-10°C	19.5
Polyester film	0°C	19.8
	-10°C	12.2

(Unit: N/20mm)

Lining material: PET#25

Peeling speed: 300mm/min

Peeling angle: 180°

Measurement temperature: 0°C, -10°C

\*Applied at 23°C, 50% RH

→ measured at 0°C and -10°C

Substrate: Stainless steel plate

Polyester film

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### Properties

#### ● Holding power

Temperature	No.5612, No.5612BN
40°C	0.4
80°C	1.1

(Unit: mm/hr)

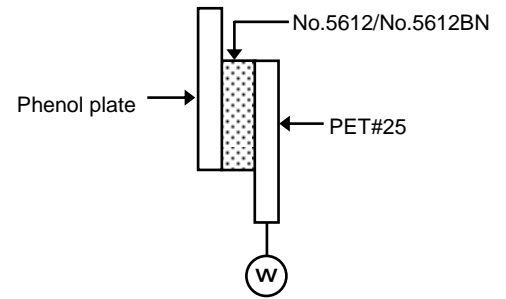
Measurement temperature: 40, 80°C

Application area: 10mm x 20mm

Load: 4.9N (500g)

Substrate: Phenol resin plate

<Test method>



#### ● Shear strength

Temperature	No.5612, No.5612BN
23°C	625

(Unit: N/20mmx20mm)

Substrate: Acrylic plate/acrylic plate

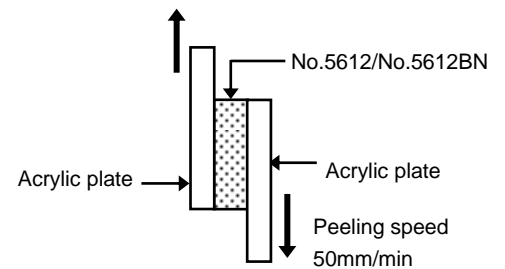
Tape area: 20mm x 20mm

Peeling speed: 50mm/min

Measurement temperature: 23°C, 50%RH

Measurement method: A specimen is prepared and shear strength is measured after allowing it to set 30 minutes.

<Test method>



#### ● 180° peeling strength by pressure

Pressure	No.5612, No.5612BN
0.1 kg	17.6
0.5 kg	19.1
2 kg	20.5
5 kg	21.0

(Unit: N/20mm)

Lining material: PET#25

Peeling speed: 300mm/min

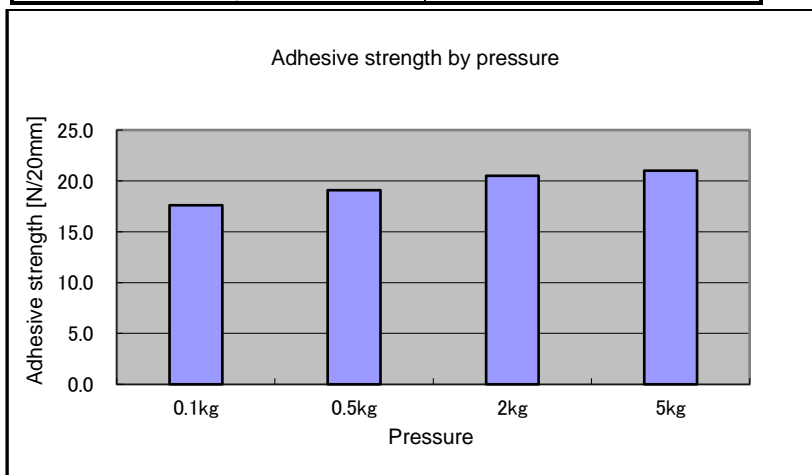
Peeling angle: 180°

Measurement temperature: 23°C, 50%RH

Pressure application conditions:

0.1kg, 0.5kg, 2kg, 5kg

1 pass back and forth with 2-kg roller



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**Properties**

● 180° peeling strength after application (increase)

Temperature	Time	No.5612, No.5612BN
23°C	0.5 hrs	20.5
	4 hrs	20.8
	12 hrs	21.1
	24 hrs	22.1
	48 hrs	22.8
	72 hrs	23.3

(Unit: N/20mm)

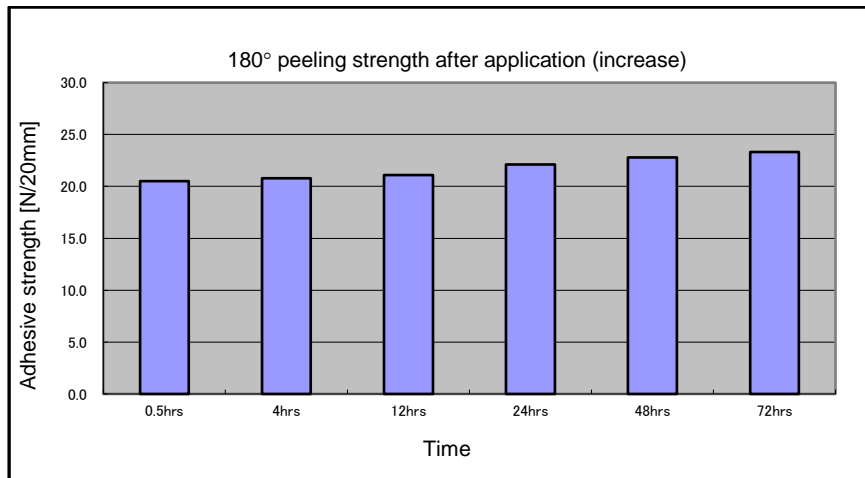
Lining material: PET#25

Peeling speed: 300mm/min

Peeling angle: 180°

Measurement temperature: 23°C, 50%RH

Substrate: Stainless steel plate



● 180° peeling strength (change after application)

Temperature	Time	No.5612, No.5612BN
23°C	1 day	22.1
	14 days	25.5
	30 days	26.5
40°C, 92%RH	1 day	25.0
	14 days	25.8
	30 days	26.9
50°C	1 day	25.6
	14 days	28.9
	30 days	29.8
70°C	1 day	27.0
	14 days	32.1
	30 days	35.0

(Unit: N/20mm)

Backing: PET#25

Peeling speed: 300mm/min

Peeling angle: 180°

Measurement condition: 23°C, 50%RH

Substrate: Stainless steel plate

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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.
- The tape employs pressure-sensitive adhesive. Be sure to apply pressure with a roller or press when applying. Failure to do so could affect properties or appearance.
- The tape may not adhere well to significantly uneven or distorted surfaces. Level off the surface as much as possible before applying.
- Because it is very thin, you should avoid applying large loads for at least several hours following application.

### Precautions when storing

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- 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

 <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>

Published in March 2019

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