Double-coated adhesive tape

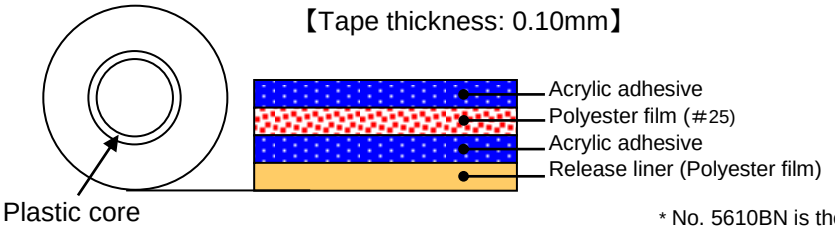
No.5610, No.5610BN

Outline

Nitto Denko No. 5610 and No. 5610BN are 0.10 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.5610, No.5610BN*
【Tape thickness: 0.10mm】



* No. 5610BN is the black version of No. 5610. Uses black polyester film.

Features

- Offers strong bonding for housing, reflective sheets and FPCs 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
- Fixing FPC to housing

Standards Size

Tape thickness (mm)	Width (mm)	Length (m)
0.10	16~500	100

For more information, please contact us.

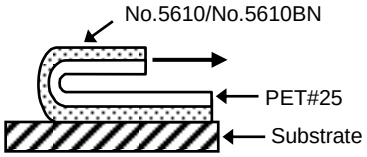
Properties

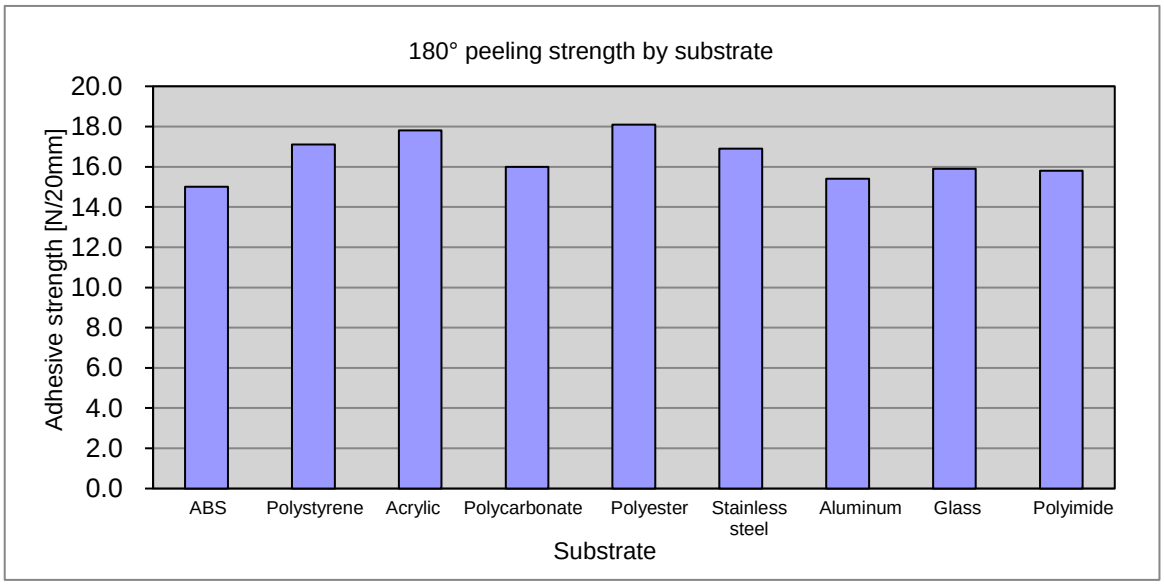
●180° peeling strength by substrate

Substrate	No.5610, No.5610BN
ABS plate	15.0
Polystyrene plate	17.1
Acrylic plate	17.8
Polycarbonate plate	16.0
Polyester film	18.1
Stainless steel plate	16.9
Aluminum plate	15.4
Glass plate	15.9
Polyimide film	15.8

(Unit: N/20mm)
Lining material: PET#25
Peeling speed: 300mm/min
Peeling angle: 180˚
Measurement temperature: 23℃, 50%RH
Pressure application conditions:
1 pass back and forth with 2-kg roller

<Test method>



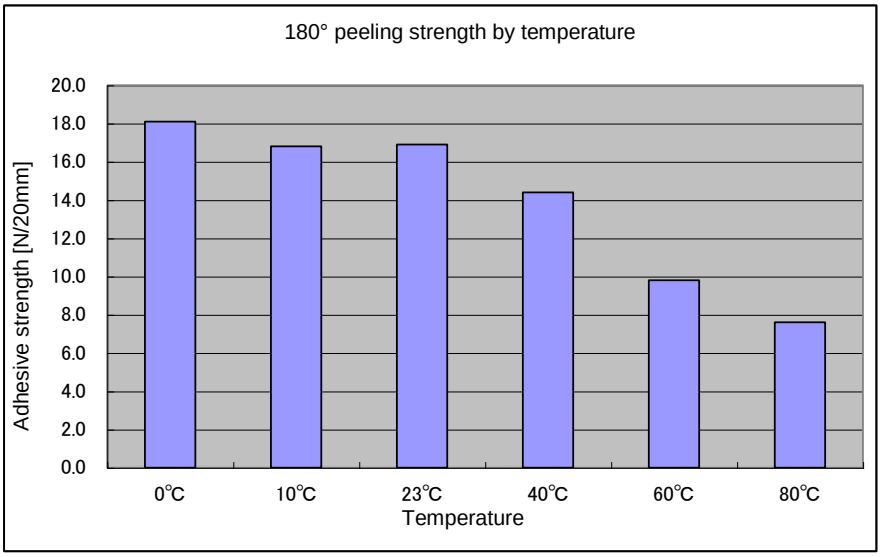


Properties

●180° peeling strength by temperature

Temperature	No.5610, No.5610BN
0℃	18.1
10℃	16.8
23℃	16.9
40℃	14.4
60℃	9.8
80℃	7.6

(Unit: N/20mm)
Lining material: PET#25
Peeling speed: 300mm/min
Peeling angle: 180˚
Measurement temperature: 0℃, 10℃, 23℃, 40℃, 60℃, 80℃
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.5610, No.5610BN
Stainless steel plate	0℃	20.0
	- 10℃	19.5
Polyester film	0℃	19.0
	-10℃	12.2

(Unit: N/20mm)
Lining material: PET#25
Peeling speed: 300mm/min
Peeling angle: 180˚
Measurement temperature: 0℃, -10℃
*Applied at 23°c, 50% RH
→ measured at 0°C and -10°C
Substrate: Stainless steel plate
Polyester film

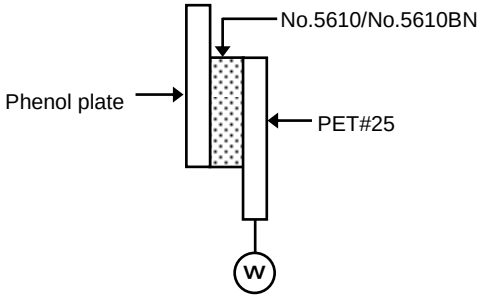
Properties

● Holding power

Temperature	No.5610, No.5610BN
40℃	0.4
80℃	0.5

(Unit: mm/hr)
Measurement temperature: 40, 80℃
Application area: 10mm x 20mm
Load: 4.9N（500g）
Substrate: Phenol resin plate

<Test method>

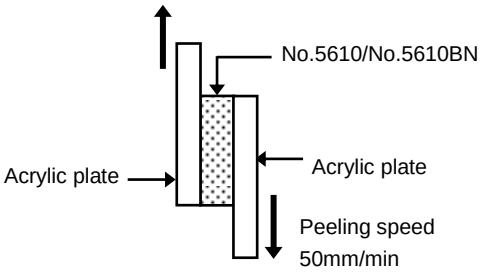


●Shear strength

Temperature	No.5610, No.5610BN
23℃	630

(Unit: N/20mmx20mm)
Substrate: Acrylic plate/acrylic plate
Tape area: 20mm × 20mm
Peeling speed: 50mm/min
Measurement temperature: 23℃, 50%RH
Measurement method: A specimen is prepared and shear strength is measured after allowing it to set 30 minutes.

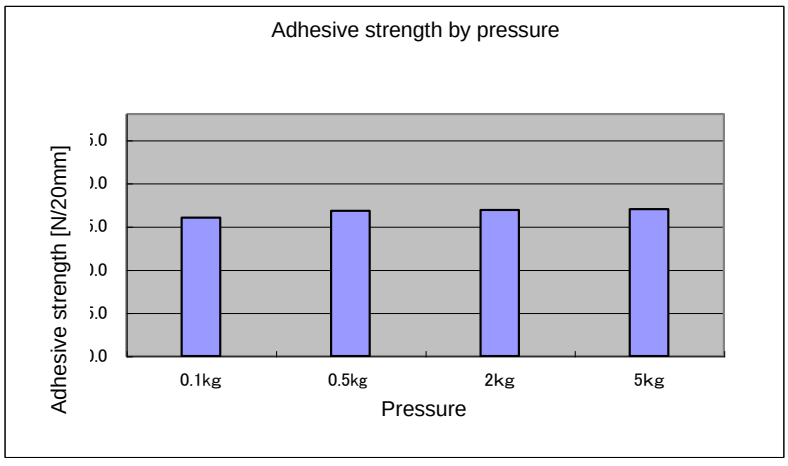
<Test method>



●180° peeling strength by pressure

Pressure	No.5610, No,5610BN
0.1 kg	16.0
0.5 kg	16.8
2 kg	16.9
5 kg	17.0

(Unit: N/20mm)
Lining material: PET#25
Peeling speed: 300mm/min
Peeling angle: 180°
Measurement temperature: 23℃, 50%RH
Pressure application conditions:
0.1kg, 0.5kg, 2kg, 5kg
1 pass back and forth with 2-kg roller

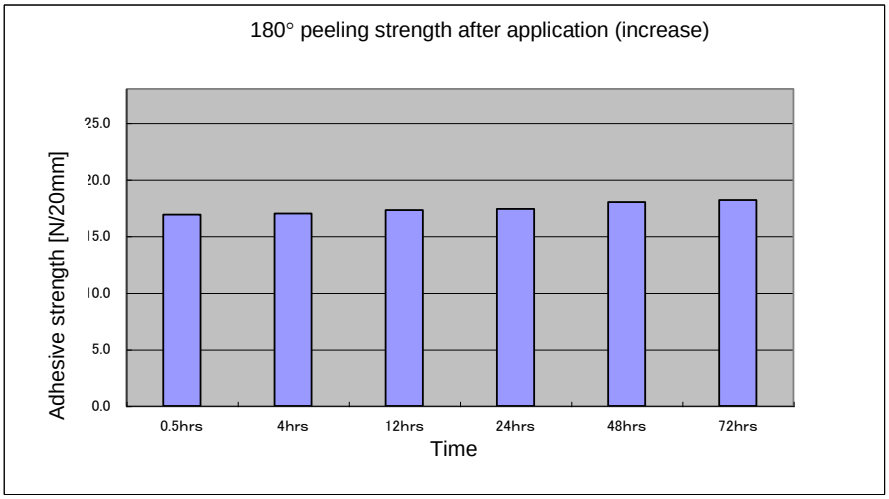


Properties

●180° peeling strength after application (increase)

Temperature	Time	No.5610, No.5610BN
23℃	0.5 hrs	16.9
	4 hrs	17.0
	12 hrs	17.3
	24 hrs	17.4
	48 hrs	18.0
	72 hrs	18.2

(Unit: N/20mm)
Lining material: PET#25
Peeling speed: 300mm/min
Peeling angle: 180°
Measurement temperature: 23℃, 50%RH
Substrate: Stainless steel plate



●180° peeling strength (change after application)

Temperature	Time	No.5610, No.5610BN
23℃	1 day	17.4
	14 days	18.8
	30 days	19.2
40℃, 92%RH	1 day	19.1
	14 days	19.2
	30 days	19.7
50℃	1 day	19.1
	14 days	20.6
	30 days	22.2
70℃	1 day	20.4
	14 days	24.6
	30 days	25.4

(Unit: N/20mm)
Backing: PET#25
Peeling speed: 300mm/min
Peeling angle: 180°
Measurement condition: 23℃, 50%RH
Substrate: Stainless steel plate

Precautions when using

●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.

●Avoid applying a large load to the tape for several hours following application.

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 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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