Nitto
Innovation for Customers

Product Data Sheet

Double-coated adhesive tape

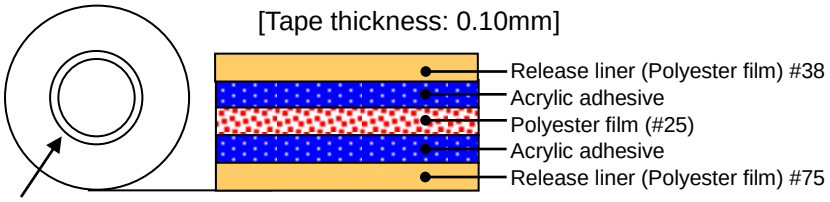
No.5610R・No.5610BRN

Outline

Nitto Denko No.5610R and No.5610BRN are 0.10mm-thickness double-coated adhesive tape consisting of acrylic adhesive with polyester carrier.
Using 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.5610R・No.5610BRN*
[Tape thickness: 0.10mm]



* No.5610BRN is the black type of No.5610R by using black polyester film.

Features

- Offers strong bonding for FPC, reflective sheets and housing used for LCD and backlight modules.
- Tape structure minimizes dust emission by using polyester release liner and plastic core.
- High repulsion property for FPC.
- Adheres well to various plastics.
- Halogen-free type.(Chloride compounds are not used for this product.)
- Ten restricted substances by RoHS are not contained.

Applications

- Fixing of reflective sheets used for LCD and backlight modules of digital cameras and cellular phones.
- Fixing of parts for compact home appliances.
- Fixing of FPC to housing.

Standard Size

Tape thickness (mm)	Width (mm)	Length (m)
0.10	30-500	50,100

For more information, please contact us.

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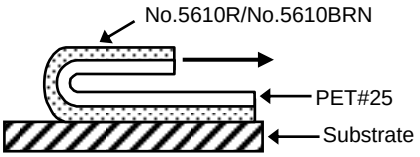
Properties

●180 degree peeling adhesion for each substrate

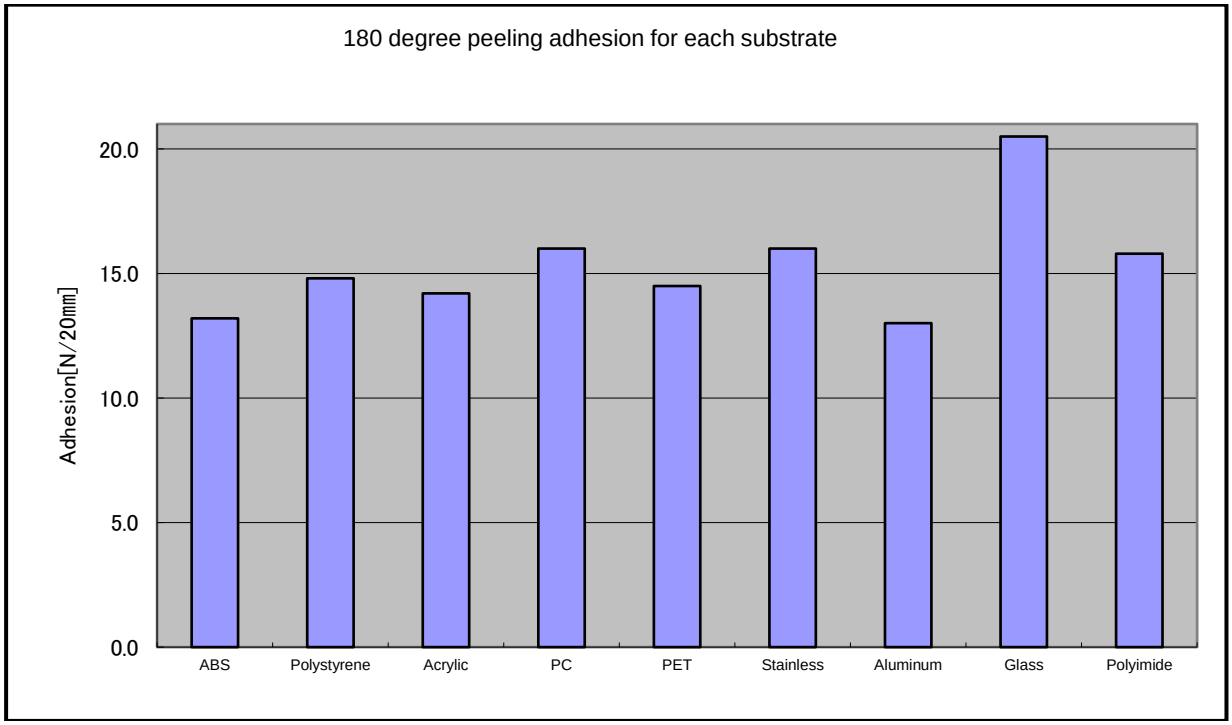
Substrate	No.5610R, No.5610BRN
ABS plate	13.2
Polystyrene plate	14.8
Acrylic plate	14.2
Polycarbonate plate	16.0
Polyester film	14.5
Stainless steel plate	16.0
Aluminum plate	13.0
Glass plate	20.5
Polyimide	15.8

(Unit: N/20 mm)
Sample width: 20mm
Lining material: PET #25
Pressing condition:
1 pass back and forth with
a 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

<Test method>



［Conforms to JIS Z-0237］



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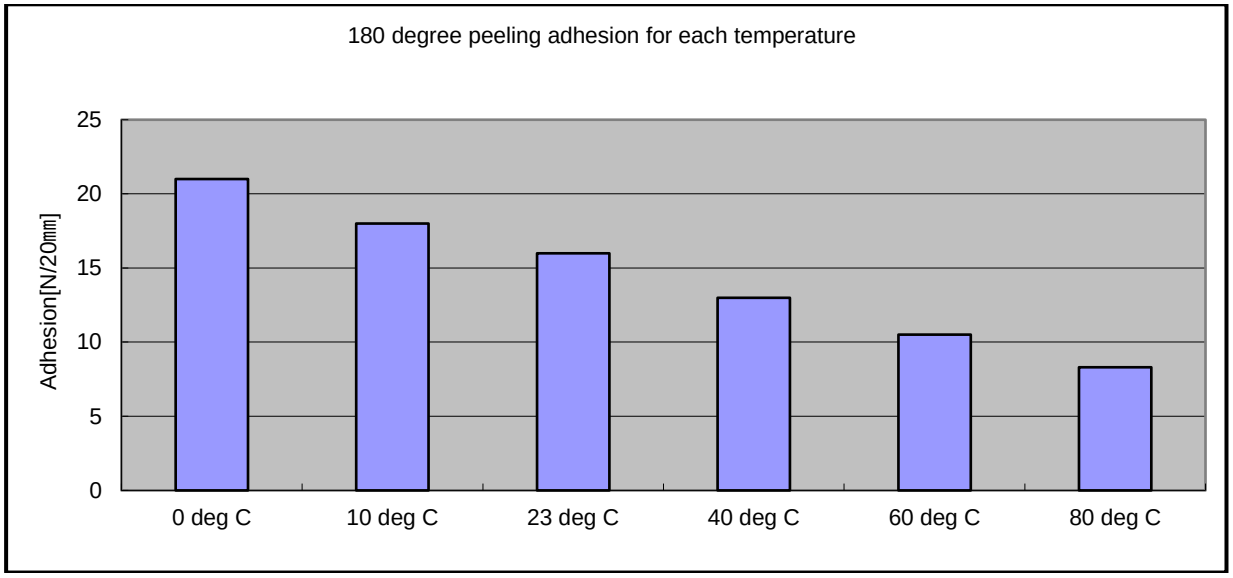
Properties

●180 degree peeling strength for each temperature

Temperature	No.5610R, No.5610BRN
0 degree C	21.0
10 degree C	18.0
23 degree C	16.0
40 degree C	13.0
60 degree C	10.5
80 degree C	8.3

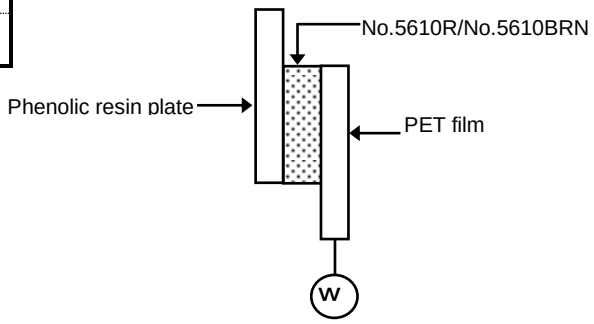
(Unit: N/20 mm)
Substrate: Stainless steel plate
Sample width: 20mm
Lining material: PET #25
Pressing condition:
1 pass back and forth with a 2 kg roller at 23 degree C/50%RH
Applying condition:
Measurement temperature x 30min
Peeling speed: 300 mm/min
Peeling angle: 180 degree
Measurement temperature:
0, 10, 23, 40, 60, 80 degree C



●Holding power

Temperature	No.5610R, No.5610BRN
40 degree C	0.1
80 degree C	0.2

<Test method>



(Unit：mm/hr)
Substrate: Phenolic resin plate
Applying condition:
Measurement temperature x 30min
Measurement temperature: 40, 80 degree C
Application area: 20 mm x 10 mm
Load: 4.9N(500g)
Loading time: 1 hr

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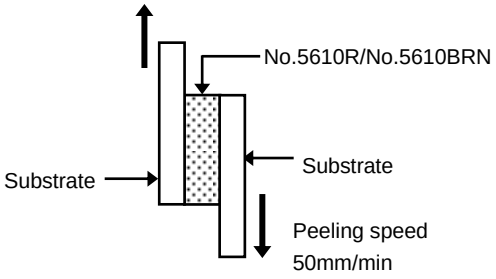
Properties

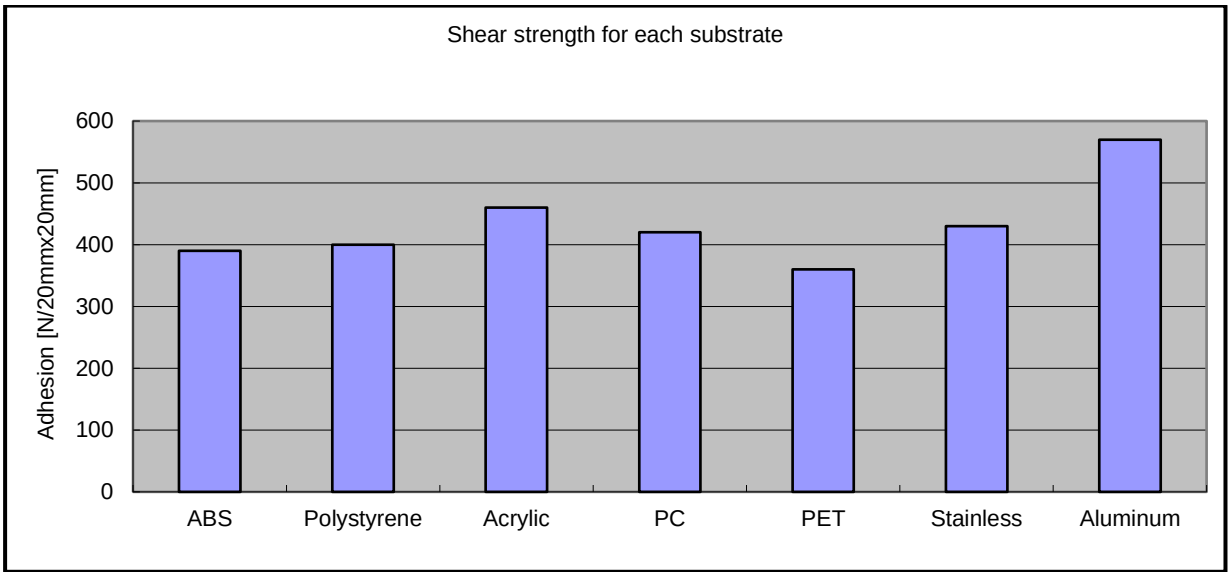
●Shear strength for each substrate

Substrate	No.5610R, No.5610BRN
ABS plate	420
Polystyrene plate	370
Acrylic plate	380
Polycarbonate plate	420
Polyester film	360
Stainless steel plate	430
Aluminum plate	450

<Test method>



(Unit: N/20mmx20mm)
Sample: 20mm x 20mm
Peeling speed: 50 mm/min
Pressing temperature: 23 degree C/50%RH
Applying condition:
23 degree C/50%RH x 30 min
Measurement temperature:
23 degree C/50%RH
Measurement method:
Make test pieces, leave them for 30min, measure shear strength.



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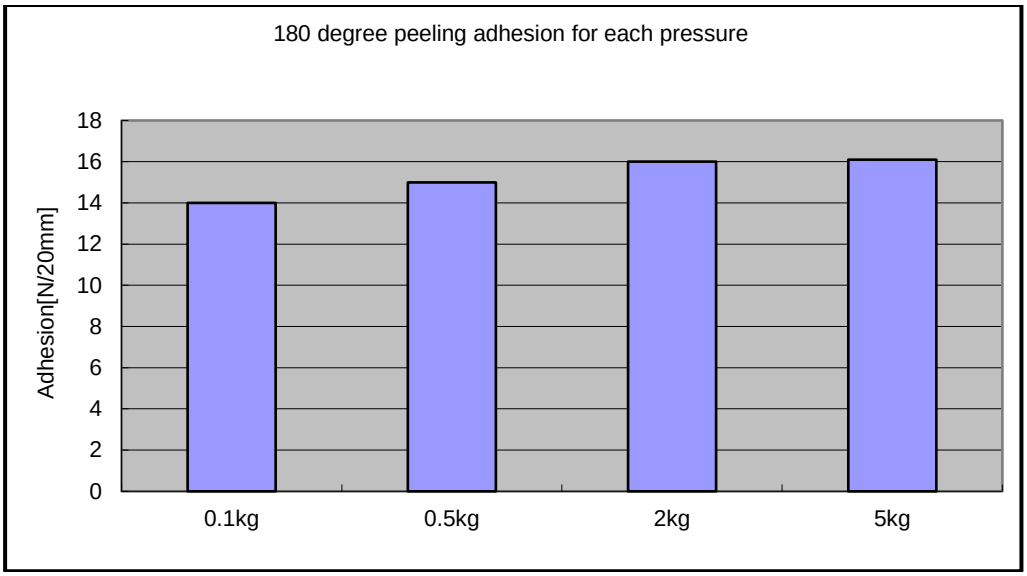
Properties

●180 degree peeling strength for each pressure

Pressure	No.5610R, No.5610BRN
0.1 kg	14.0
0.5 kg	15.0
2 kg	16.0
5 kg	16.1

(Unit: N/20 mm)
Lining material: PET #25
Peeling speed: 300 mm/min
Peeling angle: 180 degree
Applying condition:
23 degree C/50%RH x 30min
Measurement temperature:
23 degree C / 50%RH
Pressure condition:
1 pass back and forth with a 0.1kg, 0.5kg, 2kg, 5kg roller



●180 degree peeling strength after lamination

Condition		No.5610R, No.5610BRN
-30 degree C	1 day	16.0
	14 days	17.1
	30 days	17.6
50 degree C	1 day	18.0
	14 days	21.3
	30 days	25.0
40 degree C 92%RH	1 day	17.5
	14 days	23.0
	30 days	24.0
Heat shock	100 cycles	24.0

(Unit: N/20 mm)
Substrate: Stainless steel plate
Lining material: PET #25
Pressure condition:
1 pass back and forth with a 2 kg roller at 23 degree C/50%RH
Application condition: See the left table
Peeling speed: 300 mm/min
Peeling angle: 180 degree
Measurement temperature: 23 degree C/50%RH

*Heat shock: -30degree C <-> 80 degree C each 1 hr

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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.
- Because it is very thin, you should avoid applying large loads for at least 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 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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