

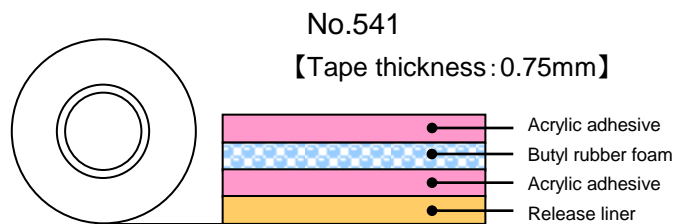
Double coated adhesive tape

No.541

Outline

Nitto Denko No.541 is 0.75mm thick butyl rubber foam based double-coated adhesive tape. This tape is ideal for bonding application such as panel and plate.

Structure



Features

- High adhesion to various surface such as metal, plastic and board.
- Can be used in a wide range of temperature from low to high.
- 0.75 mm thick double-coated adhesive tape with flexible butyl rubber foam, it holds bonding to substrate.
- The ten hazardous materials restricted by the RoHS directive are not compounded.

Application

- Fixing of plastic and metal for nameplate.
- Fixing of home appliances.
- Fixing of decorative molding and decorative material.

Standards Size

Tape thickness (mm)	Widths (mm)	Length (m)
0.75	5~1,000	10

For more information, please contact us.

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Properties

● 180° peeling adhesion by substrate

Substrates	No.541
ABS plate	12.3
Polystyrene plate	11.3
Acrylic plate	11.3
Polycarbonate plate	10.1
Stainless steel plate	12.4
Aluminum plate	10.1
Iron plate	12.5
Glass plate	15.1
Polypropylene plate	8.0
Plywood plate	10.3

(Unit: N/20mm)

Backing: PET#25

Peeling speed: 300mm/min

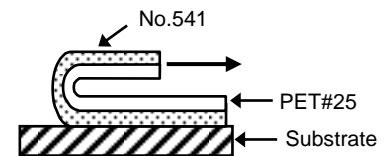
Peeling angle: 180°

Measurement condition: 23°C, 50%RH

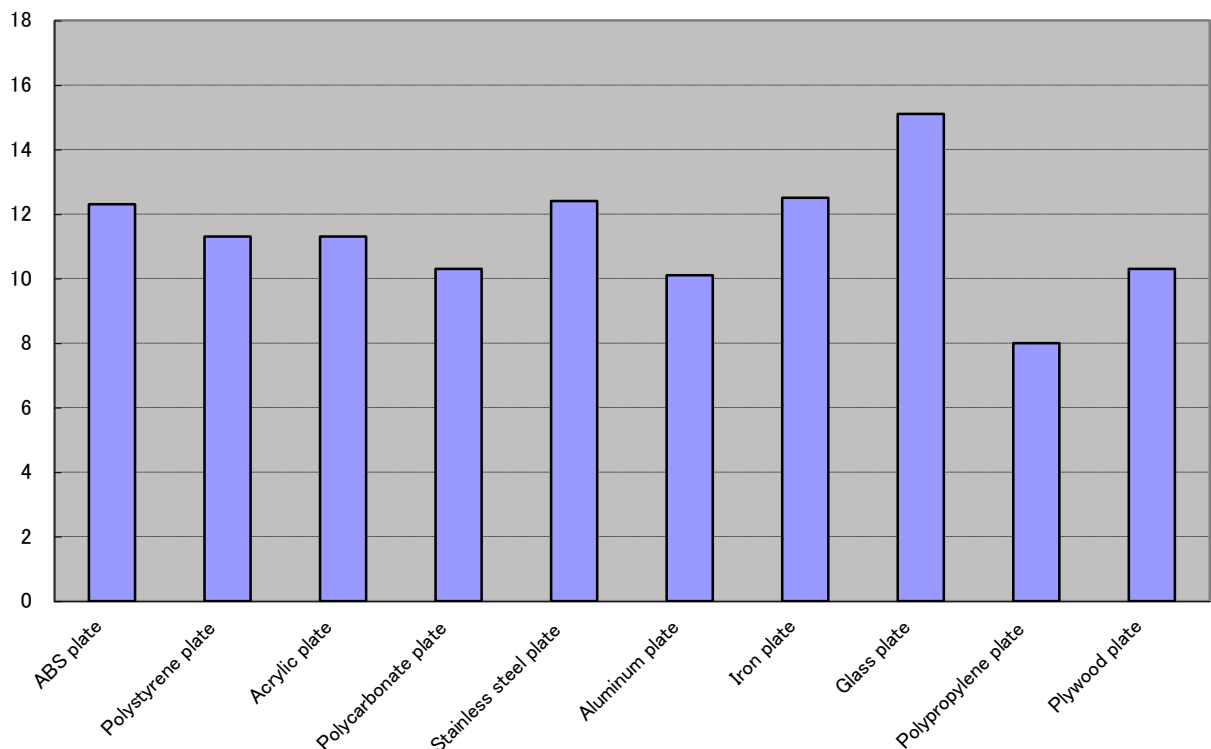
Pressure application conditions

1 pass back and forth with 2-kg roller

<Test method>



[Conforms to JIS Z-0237]



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Properties

● 180° peeling adhesion by temperature

Temperature	No.541
-10°C	9.2
0°C	10.0
10°C	10.8
23°C	12.4
40°C	8.1
60°C	6.8
80°C	6.1

(Unit: N/20mm)

Backing: PET#25

Peeling speed: 300mm/min

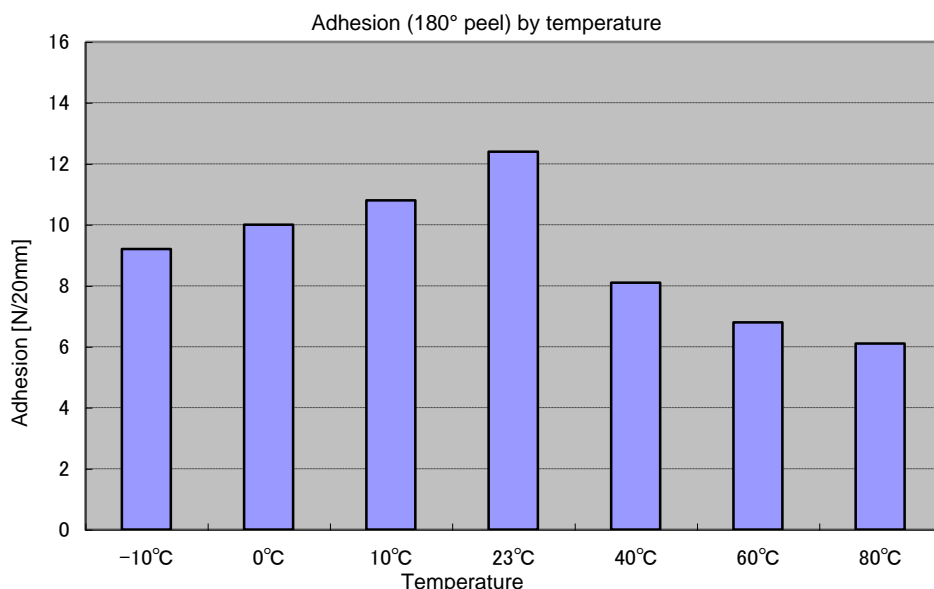
Peeling angle: 180°

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

Application under various temperatures

→ Measurement under various temperatures

Substrate: Stainless steel plate



● Holding power

Temperature	No.541
40°C	0.4
60°C	0.6

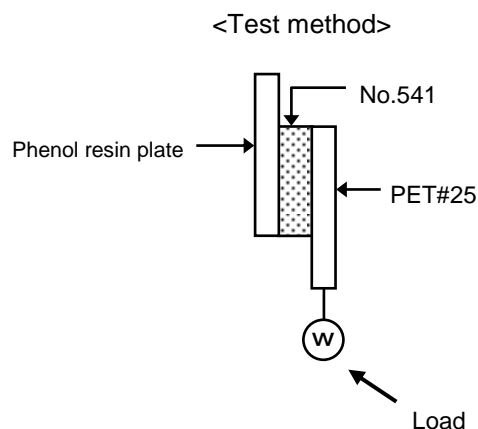
(Unit: mm/hr)

Measurement temperature: 40, 60°C

Application area: 10mm x 20mm

Load: 4.9N (500g)

Substrate: Phenol resin plate



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Properties

● Adhesion(180° peel) after application (increase)

Temperature	Time	No.541
23°C	0.5 hrs	12.4
	4 hrs	13.8
	12 hrs	15.5
	24 hrs	15.1
	48 hrs	15.1
	72 hrs	15.3

(Unit: N/20mm)

Backing: PET#25

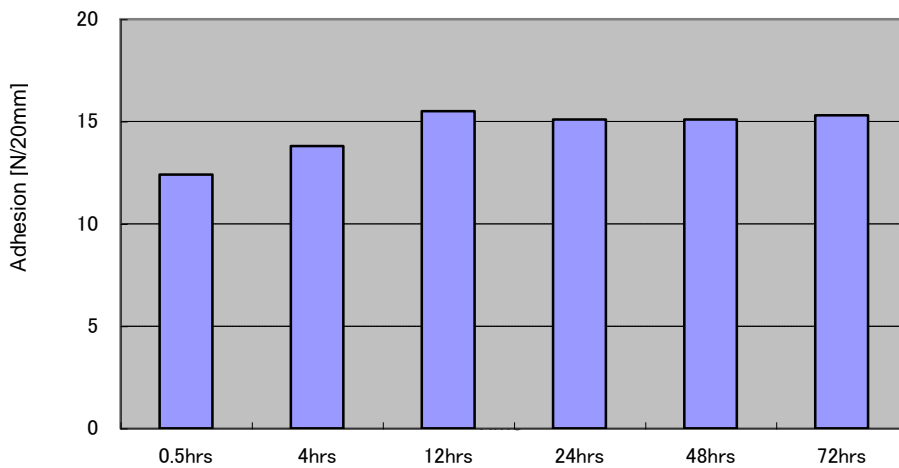
Peeling speed: 300mm/min

Peeling angle: 180°

Measurement condition: 23°C, 50%RH

Substrate: Stainless steel plate

Adhesion (180° peel) after application (increase)



● Shear strength

Temperature	Substrate	No.541
23°C	Acrylic plate /Acrylic plate	250
	Aluminum plate / Aluminum plate	255
	Plywood plate	220

(Unit: N/20mmx20mm)

Substrate: Acrylic plate / Acrylic plate, Aluminum plate / Aluminum plate, Plywood plate / Plywood plate

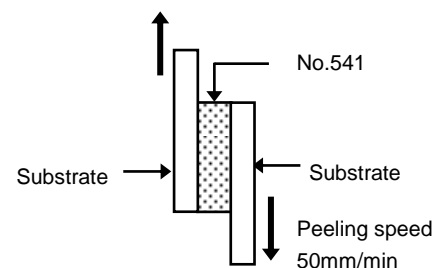
Tape area: 20mm × 20mm

Peeling speed: 50mm/min

Measurement condition: 23°C, 50%RH

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

<Test method>



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Properties

● Adhesion(180° peel) (change after application)

Temperature	Time	No.541
23°C	1 day	15.1
	14 days	17.0
	30 days	17.0
40°C, 92%RH	1 day	17.1
	14 days	17.4
	30 days	18.5
50°C	1 day	21.8
	14 days	29.8
	30 days	34.3
70°C	1 day	31.0
	14 days	35.0
	30 days	35.5

(Unit: N/20mm)

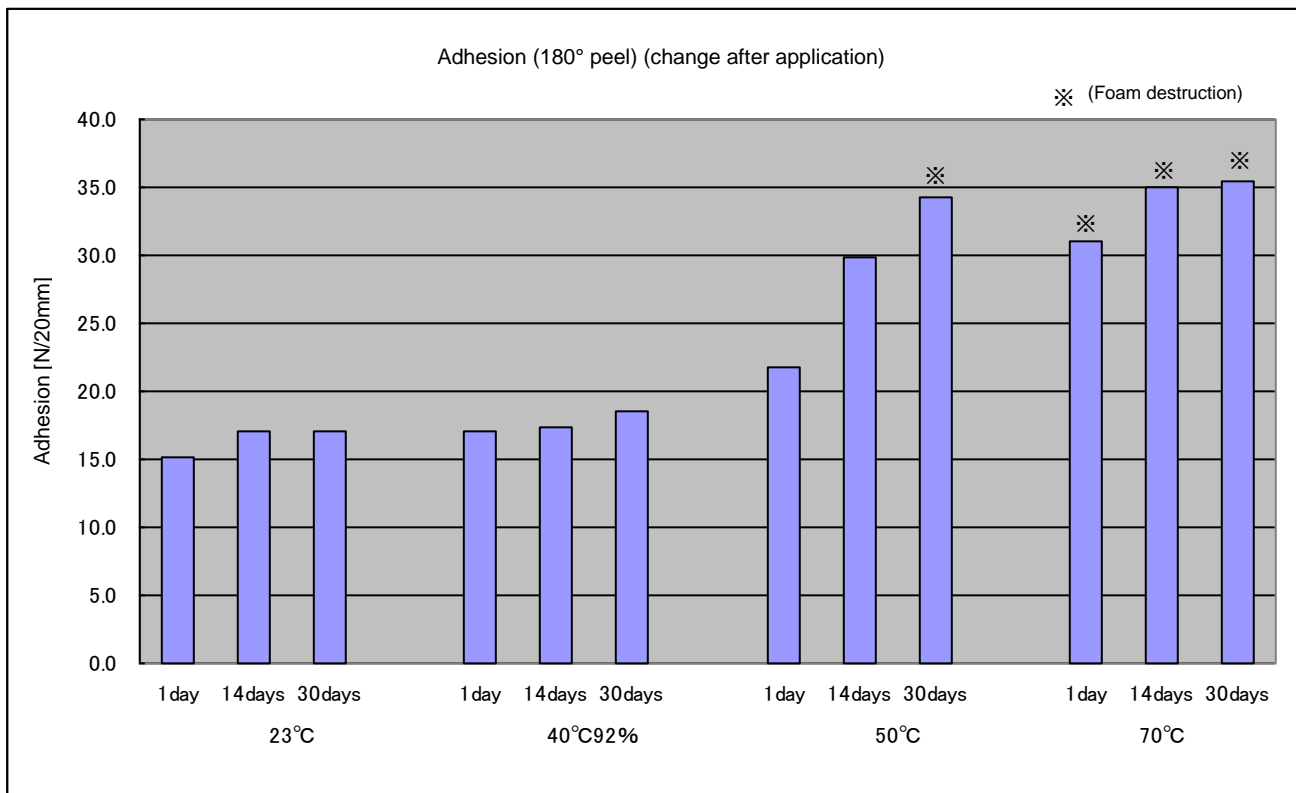
Backing: PET#25

Peeling speed: 300mm/min

Peeling angle: 180°

Measurement condition: 23°C, 50%RH

Substrate: Stainless steel plate



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Properties

● Shear strength (change after application)

Temperature	Time	No.541
23°C	1 day	260
	14 days	260
	30 days	275
40°C, 92%RH	1 day	265
	14 days	265
	30 days	275
50°C	1 day	275
	14 days	295
	30 days	330
70°C	1 day	290
	14 days	320
	30 days	290
40°C hot water	1 day	270
	14 days	275
	30 days	290

(Unit: N/20mm x 20mm)

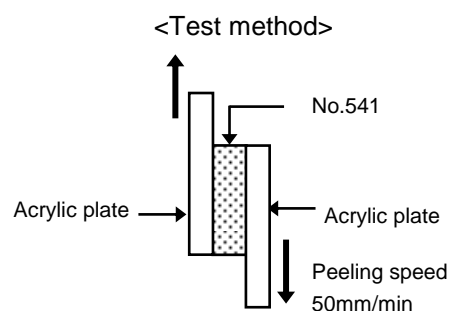
Substrate: Acrylic plate / Acrylic plate

Tape area: 20mm x 20mm

Peeling speed: 50mm/min

Measurement condition: 23°C, 50%RH

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



● Vertical break strength

Temperature	No.541
23°C	190

(Unit: N/20mmx20mm)

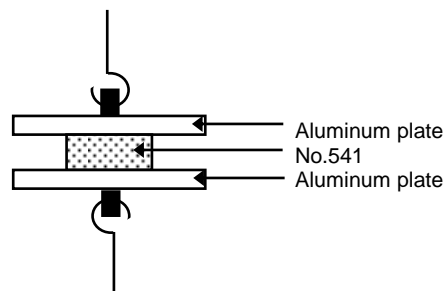
Substrate: Aluminum plate/Aluminum plate

Tape area: 20mm x 20mm

Peeling speed: 50mm/min

Measurement condition: 23°C, 50%RH

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



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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
<ul style="list-style-type: none">● 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 2019

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