NITTO

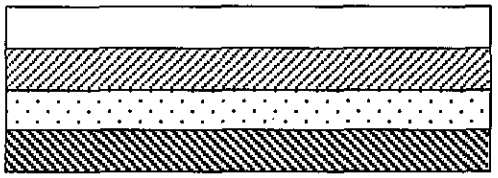
TECHNICAL DATA SHEET

DOUBLE-COATED ADHESIVE TAPE NO.5015 FOR INDUSTRIAL USE

1. Outline

The Nitto's double-coated adhesive tape No.5015 for industrial use is a flexible nonwoven fabric tape impregnated with Nitto's original strong pressure-sensitive adhesive. It ensures reliable and powerful bonding of metals and plastics. It has extremely high repulsion resistance.

2. Construction



3. Standard sizes

Thickness (mm)	Width (mm)	Length (m)
0.12	3 to 1,200	50

4. Features

(1) Wide range of application
This tape is applicable to various materials, such as metals and plastics, affording excellent and stable adhesion.

(2) Wide range of working temperature
The tape ensures excellent adhesion in the wide range of temperature, from low to high.

(3) High repulsion resistance

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5. Properties

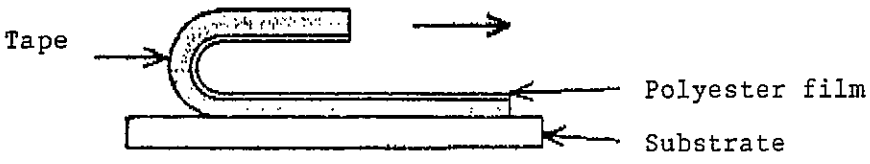
5.1 180°-peeling adhesion to various substrates

Item \ Tape		No. 5015
180°-peeling adhesion to various substrates (g/20 mm)	Stainless steel	1420
	Aluminum	1540
	PP	1250
	PC	1380
	ABS	1350
	PVC	1630
	PSt	1390
	POM	1020

• Testing method

Apply a tape 20 mm wide to specific substrate by rolling once a 2 kg roller to and fro, and after holding it for 30 minutes test it by the 180°-peeling testing method.

Contact bonding testing temperature: 23°C
Tension speed: 300 mm/min



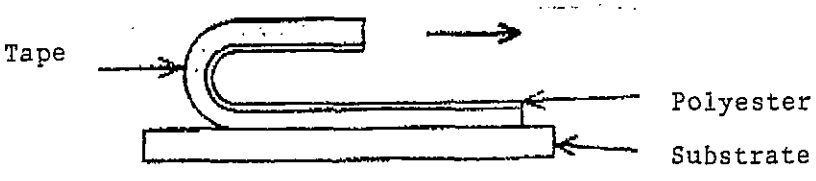
5.2 180°-peeling adhesion at various temperatures

Item		Tape	No. 5015
180°-peeling adhesion at various temperatures (g/20 mm)	Stainless steel	0°C	2020
		23°C	1420
		40°C	1250
		60°C	1230
		80°C	1050
	ABS	0°C	1940
		23°C	1350
		40°C	1220
		60°C	1120
		80°C	1150
	PP	0°C	1320
		23°C	1250
		40°C	1150
		60°C	1300
		80°C	1100

• Testing method

Apply a tape to specific substrate by rolling once a 2 kg roller to and fro, and after holding it for 30 minutes at specific temperatures, test it by the 180°-peeling method.

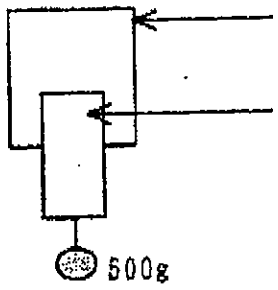
Contact bonding temperature: 23°C
Tension speed: 300 mm/min



5.3 Heat creep resistance test

Item	Tape	No. 5015
Heat creep resitance test (mm/hr.)	40°C	0.09
	60°C	0.20
	80°C	0.28

- Testing method



Bake plate

Tape (polyester film backing)

Testing temperature: 40, 60, 80°C
Bonding area: 20 mm × 10 mm
Load: 500 g

5.4 Constant load disbondment test

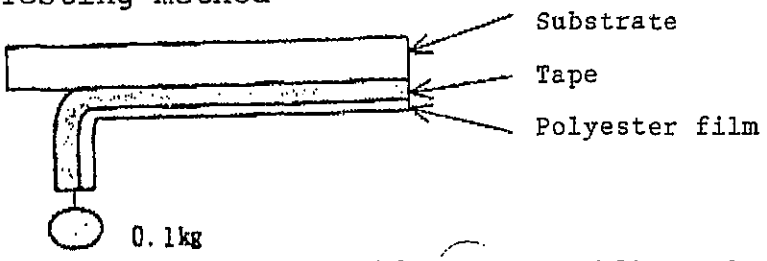
23°C × 65%RH

Item	Tape	No. 5015
Constant load disbondment test (mm/hr.)	ABS	<1
	PP	<1
	PSt	<1

60°C

Item	Tape	No. 5015
Constant load disbondment test (mm/hr.)	ABS	4.3
	PP	5.2
	PSt	4.5

• Testing method



Apply a tape 20 mm wide to specific substrate by rolling once a 2 kg roll to and fro, and after holding it for 24 hrs., age it at specific temperature for 2 hrs., and determine the tape disbondment distance after the lapse of one hour under the load of 0.1 kg.

5.5 Repulsion test

Item \ Tape		No. 5015
Repulsion test (mm/72 hrs.)	ABS	<1
	PP	<1
	PSt	<1

• Testing method

Apply a tape to the aluminum plate (20 mm × 180 mm), and then apply its another face to a specific material (substrate) (30 mm × 200 mm). Thus, the specimen is prepared. Bend the specimen as a 190 mm chord, hold it in the ambient of 70°C for 72 hrs., and determine the lift from the substrate.