



# PRODUCTS DATA SHEET

## Double-coated adhesive tape No. 591 for nameplates

### 1. Outline

Nitto double-coated adhesive tape No. 591 is a double-coated adhesive tape, which does not use substrate, developed to use for nameplates. No. 591 has excellent heat and repulsion resistance.

### 2. Configuration

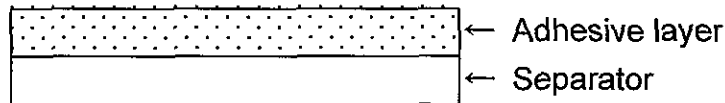


Fig. 1

### 3. Features

- (1) Burrs and sagging during the punch out process of the nameplate are extremely rare because the adhesive layer is uniform and does not use substrate. Finish of the nameplate is remarkably even.
- (2) Attachment is easy.
- (3) Excellent heat and repulsion resistance.

### 4. Applications

- (1) Bonding metals, plastics, and nameplates
- (2) General bonding

### 5. Standard size

Table 1

Thickness (mm)		Width (mm)	Length (m)
Adhesive layer	Separator		
0.05	0.085	400	50, 100

6. Characteristics

6.1 General characteristics

Table 2

Item	Unit	No. 591	A (of another company)	B (of another company)	Test method
Thickness	mm	0.05	0.05	0.05	-
Adhesion	2 min. later	900	1,150	800	a)
	30 min. later	1,050	1,400	950	
Separator peeling strength	g/50 mm	40	180	60	b)
Holding power	mm	0.5	1.0	1.0	c)

- Test method

a) Adhesion

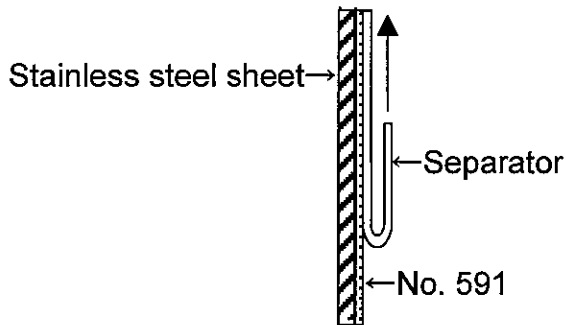
180° peeling method

Tensile speed: 300 mm/min.

b) Separator peeling strength

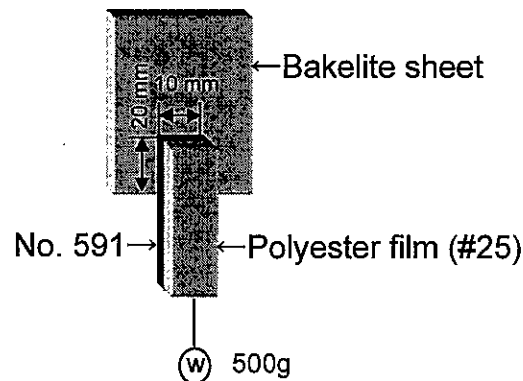
180° peeling method

Tensile strength: 300 mm/min.



c) Holding power

A load of 500 g is applied to a sample. Then, slippage is measured two hours later at 40°C (constant temperature).



## 6.2 Adhesion per adherend

Table 3

(Unit: g/20 mm)

Adherend	No. 591	A (of another company)	B (of another company)
Stainless steel sheet	1,050	1,400	800
Aluminum sheet	900	1,100	900
ABS sheet	800	1,250	800
Bakelite sheet	1,150	1,400	1,050
Styrol sheet	900	1,200	800
Polypropylene sheet	350	650	300
Acrylic sheet	1,100	1,400	1,100
Rigid PVC sheet	1,300	1,600	1,300
Polyester sheet	1,000	1,700	950

- Test method

180° peeling method

Measurement temperature: 20°C

Tensile speed: 300 mm/min.

## 6.3 Temperature sensitivity

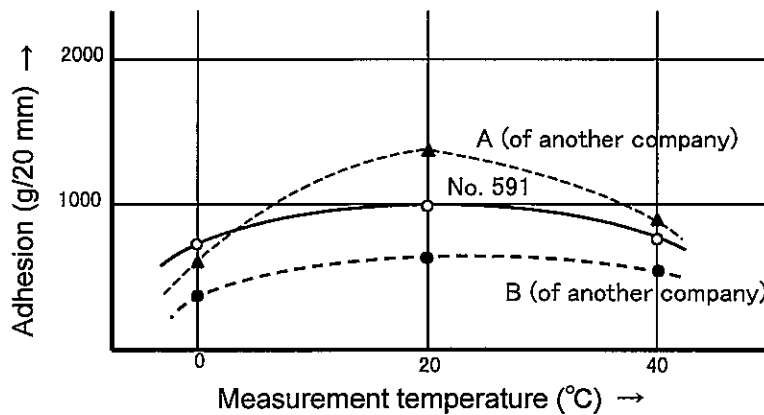


Fig. 2

- Test method

180° peeling method

Adherend: Stainless steel sheet

Measurement temperature: Measured 30 minutes later at each temperature

Tensile speed: 300 mm/min.

### 6.4 Repulsion resistance

Table 4

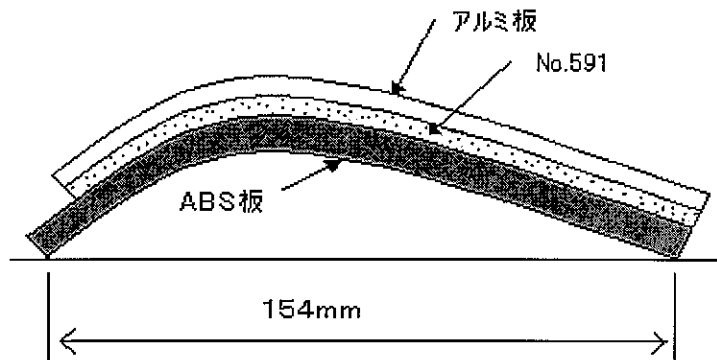
(Unit: mm)

Adherend	Condition	No. 591	A (of another company)	B (of another company)	Test method
Aluminum to ABS	40°C x 7 days	1.0	5.0	2.0	a)
	60°C x 7 days	1.0	10.0	7.0	
ABS to ABS	20°C x 7 days	0.5	1.5	2.5	b)
	60°C x 7 days	0.4	1.2	1.2	

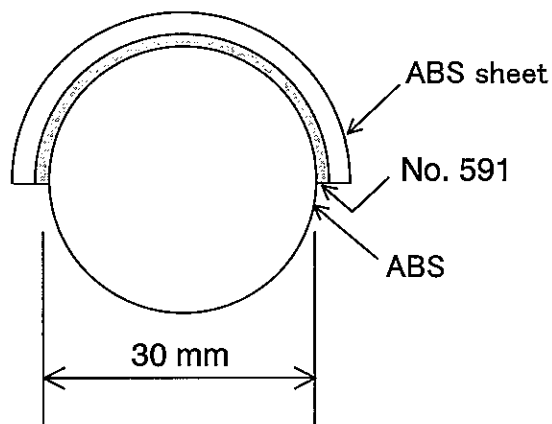
- Test method

- a) Adherend: Aluminum sheet 0.4 mm (t) x 25 mm x 140 mm  
 ABS sheet 2.0 mm (t) x 30 mm x 150 mm

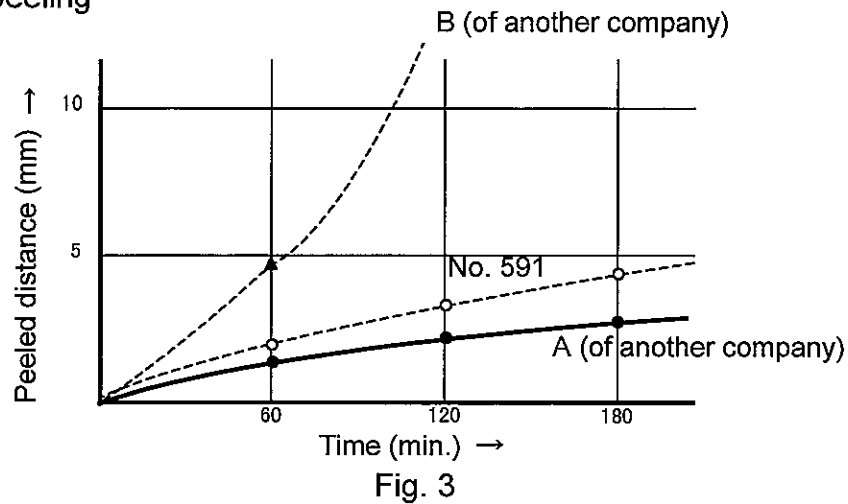
Aluminum sheet  
 No. 591  
 ABS sheet  
 154 mm



- b) Adherend: ABS sheet 0.3 mm (t) x 10 mm x 30 mm  
 ABS pipe  $\phi$  30 mm

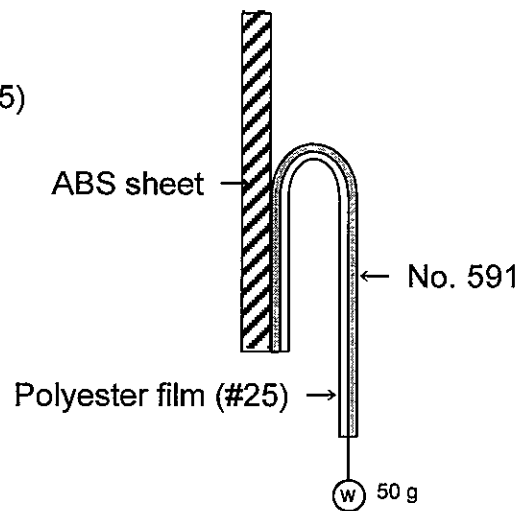


## 6.5 Constant load peeling



### - Test method

Measurement temperature:	40°C
Adherend:	ABS sheet
Sample width:	10 mm
Backing material:	Polyester film (#25)
Load:	50 g



### 7. Precautions for use

- (1) Wipe off any moisture, oil, dust, etc. on the adherend surface.
- (2) Apply sufficient pressure to attach the tape to the adherend because the adhesive is pressure sensitive.
- (3) Handle the tape with due care.
  - Avoid bumping to the side of the tape.
  - After use, store the tape as packaged at delivery in a room out of direct sunlight at normal temperature and humidity.
- (4) The values in this data sheet are example values measured at our laboratory, not guaranteed values.