NITTO
PRODUCT INFORMATION
Ref. No. DC507-D05-E 04'82

NITTO Double-Coated Adhesive Tape No.507
(for industrial use)

1. GENERAL DESCRIPTION

NITTO Double-Coated Adhesive Tape No.507 consists of a flexible nonwoven fabric impregnated with a pressure-sensitive adhesive having high heat and weathering resistance. No.507 displays excellent bonding ability to rough surfaces and irregular surfaces.

2. FEATURES

1) Satisfactorily adheres to various kinds of substrate due to the high adhesive strength of No.507.
2) Well conformable and bondable to rough surfaces and irregular surfaces due to the proper flexibility and thickness of the tape.
3) Provides good bondability even at -10°C.
4) Highly durable and hardly deteriorated when exposed to heat or light.
5) High heat resistance.

3. MAJOR USES

1) For bonding flooring materials.
2) For bonding ABS sheet for automotive use.

4. STANDARD SIZE

Table 1

Thickness (mm)	Width (mm)	Length (m)
0.30	as specified	20, 50

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5. PROPERTY

5.1 General Properties

Table 2

Test Item	Unit	Test Result
Tensile Strength	kg/10mm width	3.6
Elongation	%	14
Adhesion	g/20mm width	
to Stainless steel		950
Aluminum		910
Polyethylene		880
ABS		750
Bakelite		535
Enamelled acrylic		750
Enamelled PVC		980
Veneer		535

5.2 180° Peel Strength

Substrate: stainless steel

Table 3 180° Peel Strength in g/20mm width

Measuring Temperature (°C)	Test Result
-10	1250
0	1215
10	1015
20	950
40	980

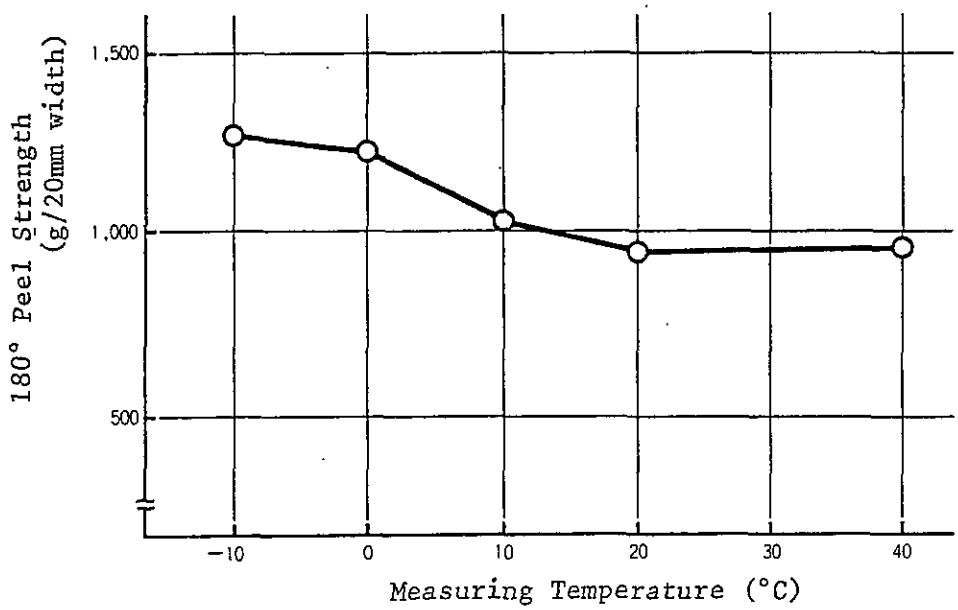

Fig. 1

5.3 Shear Strength

Table 4 Shear Strength in kg/20mmx20mm

Measuring Temperature (°C)	Test Result
20	21.1
40	16.7
60	13.9
80	11.1
100	6.0

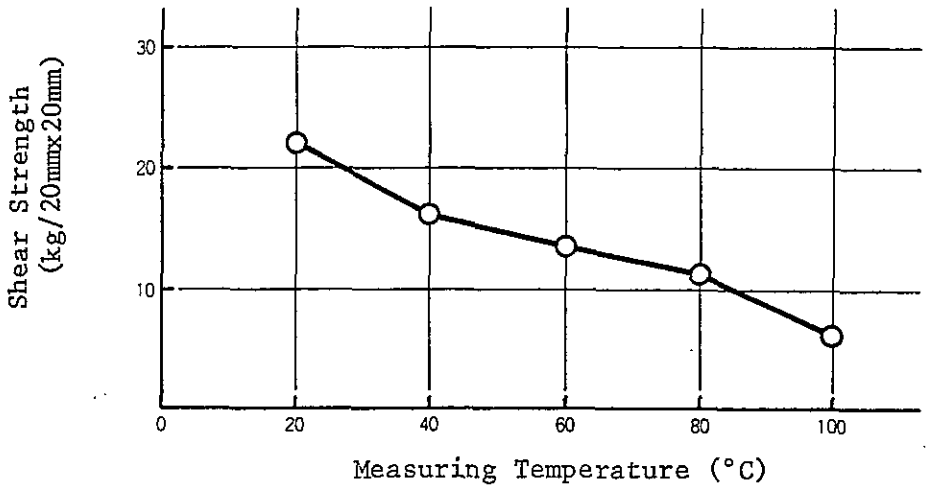

Fig. 2

Test Method: Test samples are prepared at the temperature as specified respectively as shown below. After leaving them for at least 2 hours at the same temperature, the shear strength shall be measured.

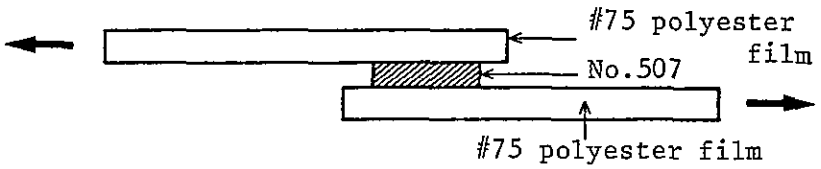

Fig. 3

Specimen: No.507, 20mm x 20mm

Measuring apparatus: Instron tensile tester

Pulling rate: 300mm/min.

5.4 Holding Power

Table 5

Face Measured	Slippage (mm)
First face	1.2
Second face	1.0

Test Method: Specimen (20mm x 10mm) is applied to a Bakelite plate and to the other face of it, #25 polyester film is applied at 20°C. Then, a weight of 500g is hung down from the lower end of the film at 40°C as shown in Fig.4. 4 hours later, the slippage shall be determined on the first face and the second face.

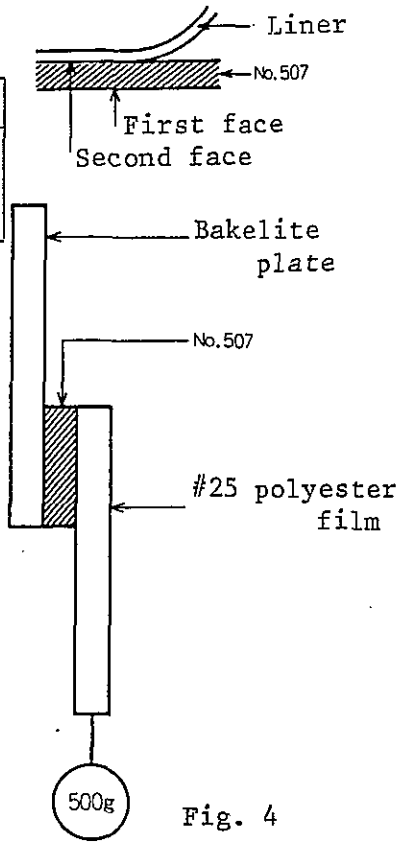

Fig. 4

5.5 Water, Moisture & Heat Resistance

Table 6 Shear Strength in kg/20mmx20mm

Condition \ Duration (days)	0	3	6	15
Water Immersion	21.1	20.0	19.3	20.3
50°C x 100%RH	21.1	21.7	21.7	22.8

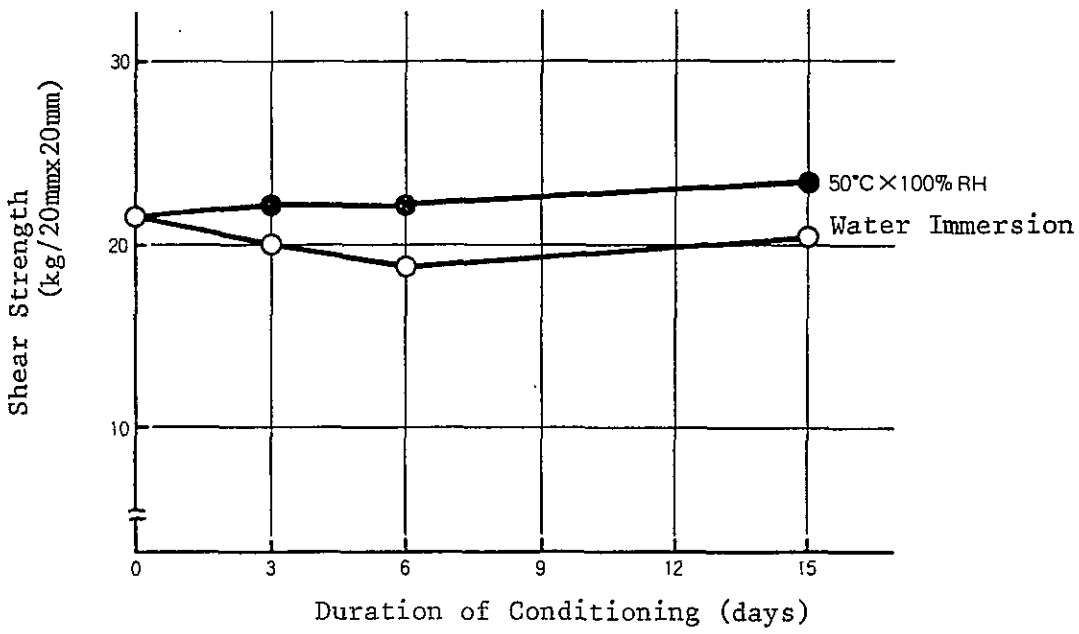

Fig. 5

Test Method: Test samples as shown in Fig. 3 are prepared and immersed in water or conditioned at 50°C and 100%RH. After the duration of conditioning as specified, they are taken out and then, the shear strength shall be determined.

6. USAGE PRECAUTIONS

1) Before application, remove oil and grease, dirt and dust and moisture from the surface to be applied.

2) Make rough or irregular surfaces smooth as much as possible.

3) Apply pressure so that the pressure-sensitive adhesive can work as designed.

4) It will take a time before the adhesion as intended is available. Accordingly, please take care not to expose the applied surface to local strong power for several hours after application.

5) The recommended application temperature is 10°C to 30°C (room temperature). Once applied at normal temperature, the properties will never be deteriorated even when exposed to low or high temperatures.

7. STORAGE PRECAUTIONS

1) The material should be stored in a carton box. Place the carton box so that the cut faces of the tape roll are horizontal. If not, the tape rolls will be deformed due to their own weight.

2) The material should be stored in a dark and cool place away from direct sunlight.

Note: Technical data figures herein contained are typical values and should not be used for any specification purposes.