

NITTO DENKO PRODUCT INFORMATION

Ref. No. 5302A-D03-E 02'90

NITTO DOUBLE-COATED ADHESIVE TAPE No.5302A FOR BONDING SILICONE RUBBER

1. Outline

NITTO No.5302A is a double-coated adhesive tape specifically developed for bonding silicone rubber which was conventionally difficult to bond. Its liners can be easily removed.

1. Features

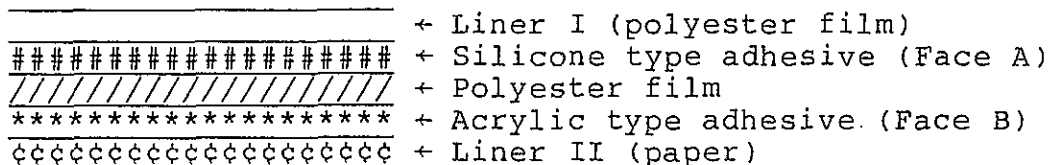
(1) Face A (Silicone type adhesive)

- * Surely bonds to silicone rubber.
- * Bondable even at low temperature (-10°C).
- * Has excellent electrical insulating properties.

(2) Face B (Acrylic type adhesive)

- * Shows high bonding strength to almost all materials except for non-polar materials e.g. silicone rubber and polyethylene.
- * Provides excellent initial tack.

2. Construction



3. Standard Size

Thickness (mm)	Width (mm)	Length (m)
0.085	100, 500	20



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5. Properties

5.1 General Properties

Properties	Values	Test Method	
Thickness (mm)			
Tape	0.085	By means of a dial gauge	
Adhesive	Face A		0.03
	Face B		0.03
Liner	Face A		0.05
	Face B	0.15	
Adhesion (g/20mm)			
to stainless steel	Face A	980	JIS Z 1528 Z 0237
	Face B	1000	
to silicone rubber	Face A	300	
Liner peel strength (g/50mm)			*1
	Face A	20	
	Face B	10	
Tensile strength (kg/cm)	6.9	JIS C 2338 JIS C 2107	
Elongation (%)	70		
Breakdown voltage (kv)	6.9	JIS C 2110	
Withstand voltage (kv)	4.0		

Values listed above are typical and should not be used for any specification purposes.

Note: Face A = Transparent liner (polyester film) side
(silicone type adhesive face)

Face B = White liner (paper) side
(acrylic type adhesive face)

*1: The liner is peeled by Schopper pendulum type tensile tester at a rate of 300 mm/min.

Testing condition: $25 \pm 3^{\circ}\text{C}$, $50 \pm 20\%RH$.

5.2. Adhesion to Silicone Rubber vs. Application Temperature Relations

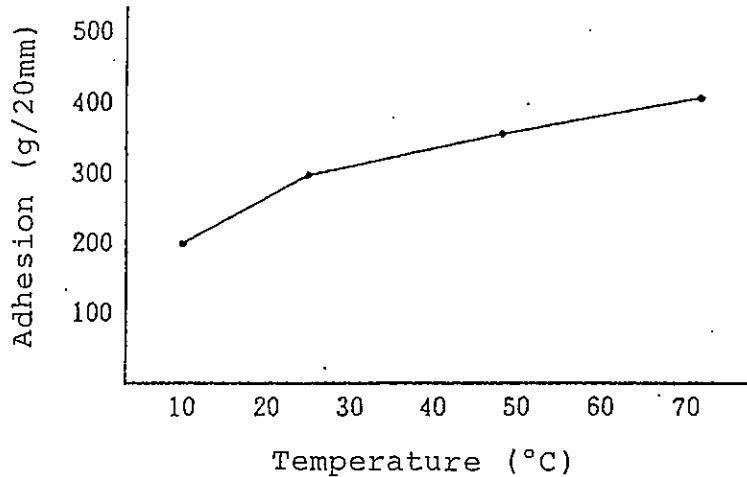


Fig. 1 Adhesion to Silicone Rubber vs. Application Temperature Relations

Test specimen: 20mm wide x 140mm long

Test method: A thermosetting type silicone rubber (70° hardness) is applied to the face of the test specimen where the transparent liner is peeled, at a temperature as specified. Immediately, the assembled sample is moved into an atmosphere of 25°C, then after the duration of 20min., the adhesion shall be measured in accordance with JIS Z 0237. The white liner of the test specimen is replaced by 25 μm polyester film before testing.

5.3. Adhesion to Silicone Rubber vs. Period after Application Relations

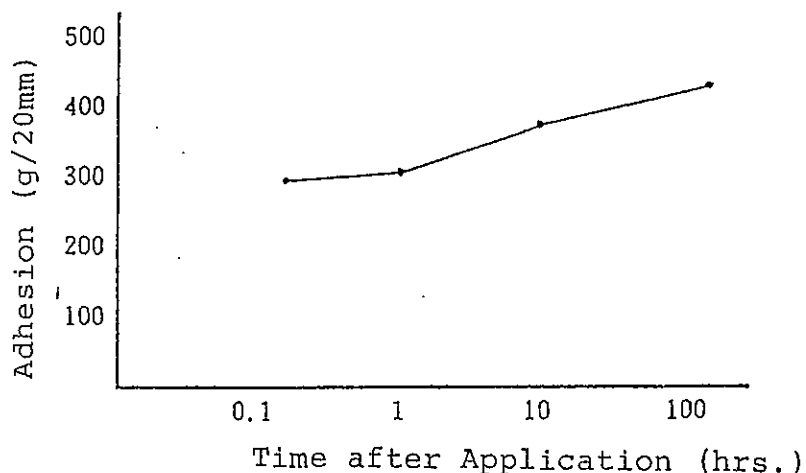


Fig. 2 Adhesion to Silicone Rubber vs. Period after Application Relations

Test method: the same as mentioned in 5.2. 25°C, 50%RH.

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