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Product Data Sheet

Superior adhesive performance acrylic foam Double-coated adhesive tape

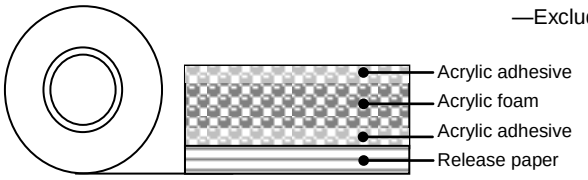
HYPERJOINT®
H7004, H7008, H7012

Outline

Nitto Denko H7004, H7008 and H7012 are double-coated adhesive tapes that have superior adhesion, heat resistance and durability using by flexible acrylic foam.

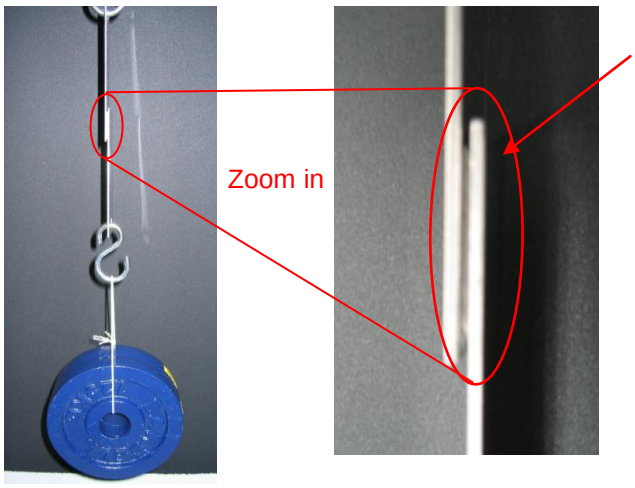
Structure

H7004【Tape thickness：0.4mm】
H7008【Tape thickness：0.8mm】
H7012【Tape thickness：1.2mm】
—Excluding release paper



Features

- Superior adhesion, heat resistance and water resistance.
- Stable adhesion with following substrate move using by flexible acrylic foam.
- 6 restricted substances by RoHS are not contained.



The tape shows excellent bonding performance to substrate like this heavy load because of its high shear strength and holding power.

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Applications

- Fixing of name plate, sign board and fittings for housing.
- Fixing of exterior components for automobile.
- Fixing of home electronics parts.
- Fixing of metal name plate.

Standards Sizes

Product numbers	Tape thickness [mm]	Width [mm]	Standard Length [M]
H7004	0.4	5 – 1,150	20
H7008	0.8	5 – 1,150	20
H7012	1.2	5 – 1,150	20

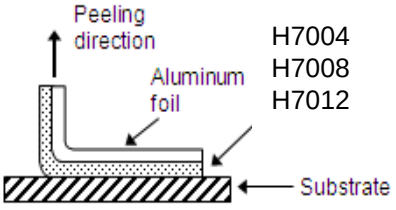
For more information, please contact us.

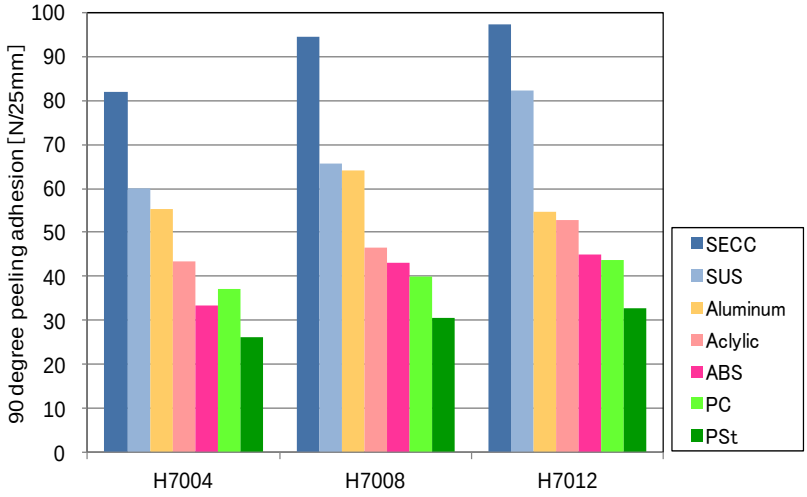
Properties

●90 degree peeling adhesion by substrates

Substrates	H7004	H7008	H7012
SECC steel plate	82	94	97
Stainless steel plate	60	66	82
Aluminum plate	55	64	55
Acrylic plate	43	47	53
ABS plate	33	43	45
Polycarbonate plate	37	40	44
Polystyrene plate	26	31	33

(Unit: N/25mm)
Backing: Aluminum foil (0.13 mm thickness)
Peeling speed: 300mm/min.
Peeling angle: 90 degree
Application condition:
1 pass back and forth with 5-kg roller at 23 degree C.
measured adhesion after allowing it to set 30 minutes
Measurement condition: 23 degree C. x 50%RH





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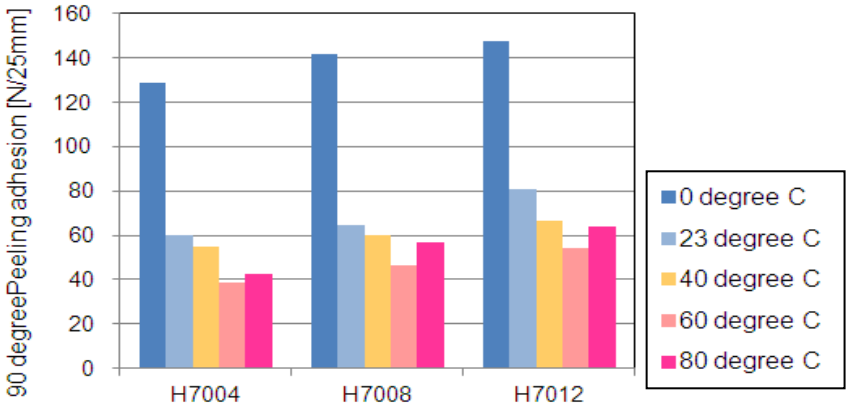
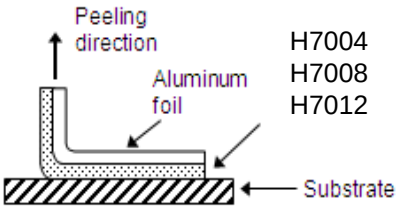
●90 degree peeling adhesion by temperatures

Measurement temperatures		H7004	H7008	H7012
90 degree Peeling adhesion [N/25mm]	0 degree C.	128	142	148
	23 degree C.	60	66	82
	40 degree C.	55	60	66
	80 degree C.	39	47	54
	100 degree C.	42	57	64

(Unit: N/25mm)
Substrate: Stainless steel plate
Backing: Aluminum foil (0.13 mm thickness)
Peeling speed: 300mm/min.
Application condition:
1 pass back and forth with 5-kg roller at 23 degree C.
measured adhesion under various temperatures
after allowing it to set 30 minutes
Peeling angle: 90 degree

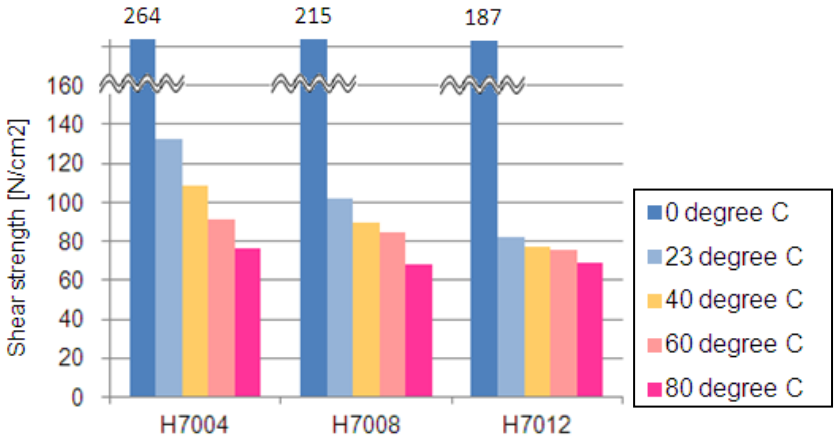


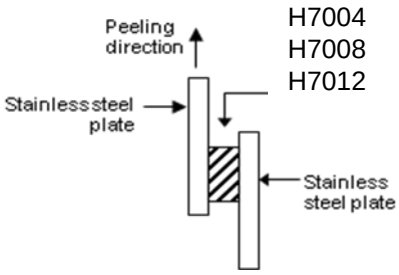


●Shear strength by temperatures

Measurement temperatures		H7004	H7008	H7012
Shear strength [N/cm^2]	0 degree C.	264	215	187
	23 degree C.	132	102	82
	40 degree C.	108	90	77
	80 degree C.	91	85	75
	100 degree C.	76	68	69

(Unit: N/cm^2)
Substrate: Stainless steel plate
Tape area: 25mm x 25mm
Peeling speed: 50mm/min.
Application condition:
1 pass back and forth with 5-kg roller at 23 degree C.
measured shear strength under various temperature
after allowing it to set 30 minutes





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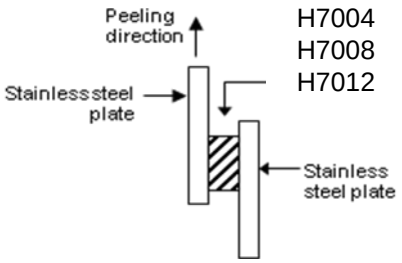
●Durability (Shear strength)

Evaluation	H7004	H7008	H7012
Initial (23℃ x 30minutes)	132	102	82
Ordinary state (23℃ x 24hours)	191	134	113
Heat resistance (80℃x 250hours)	260	207	175
Water resistance (40℃ hot water x 250hours)	135	98	76
Thermal cycle resistance※	111	88	78

※Condition of thermal cycle
10 cycles 80℃×16hours ⇒ 23℃×an hour ⇒ 50℃×98%RH×24hours
⇒ 23℃×an hour ⇒ −30℃×8hours ⇒ 23℃×an hour

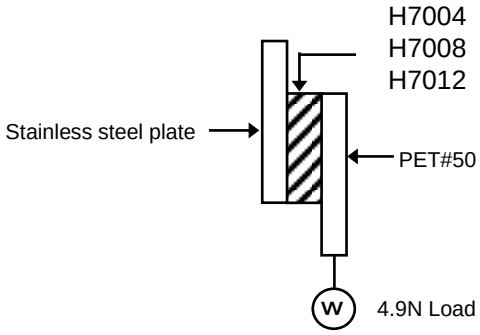
(Unit: N/cm^2)
Substrate: Stainless steel plate
Peeling speed: 50mm/min.
Tape area: 25mm x 25mm
Application condition:
1 pass back and forth with 5-kg roller at 23 degree C.
measured adhesion under various conditions
after allowing it to set 30 minutes
Measurement condition: 23 degree C. x 50%RH



●Holding power(Amount of transformation)

Measurement temperature	H7004	H7008	H7012
80 degree C.	0.2	0.3	0.5

(Unit: mm)
Substrate: Stainless steel plate
Backing: Polyester film #50
Tape area: 10mm x 20mm
Load: 4.9N
Measurement temperature: 80 degree C.
Measured amount of transformation after 2hours



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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**
● 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 or conditions under which it is applied. ● Use in combination with another method of joining if there is possibility of an accident.

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