

# Superior adhesive performance acrylic foam Double-coated adhesive tape

# **HYPERJOINT®**

# H9004, H9008, H9012

# **Outline**

**HYPERJOINT** ® H9004, H9008 and H9012 are double-coated adhesive tapes that have superior adhesion, heat resistance and durability using by flexible acrylic foam.

## **Structure**



## **Features**

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

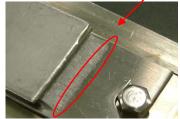


No Separation

Excellent adhesive performance using by flexible and strong acrylic foam.







Acrylic foam followed with substrate move under temperature change for the time being.

Initial at laminating

Substrate has been displaced on purpose to imagine substrate move.

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# **Applications**

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

### Standards sizes

Product numbers	Tape thicknes <b>s</b> [mm]	Widths [mm]	Lengths[M]
H9004	0.4	25	20
H9008	0.8	25	20
H9012	1.2	25	20

For more information, please contact us.

## **Properties**

●90 degree peeling adhesion by substrates

Substrates	H9004	H9008	H9012
Stainless steel plate	33	55	60
Aluminum plate	27	35	40
Acrylic plate	28	30	35
ABS plate	21	24	26
Polycarbonate plate	25	27	29
Polystyrene plate	19	22	25

(Unit: N/25mm)

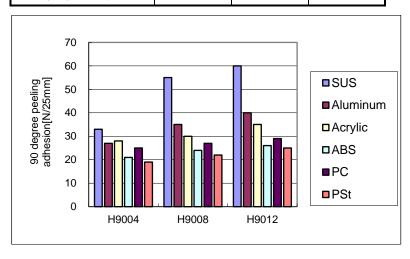
Backing: Aluminum foil (0.13 mm thickness)

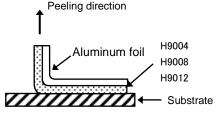
Application condition: 1 pass back and forth with 5kg roller

Bonding temperature: 23degreeC/50%RH Curing condition: 23degreeC/50%RH x 30 min

Peeling speed: 300 mm/min. Peeling angle: 90 degree

Measurement condition: 23degree C/50%RH





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# **Product Data Sheet**

90 degree peeling adhesion by temperatures

Measurement temperatures		H9004	H9008	H9012
	0 degree C.	43	63	98
90 degree	23 degree C.	33	55	60
Peeling adhesion	40 degree C.	28	50	55
[N/25mm]	80 degree C.	23	38	46
	100 degree C.	20	30	45

(Unit: N/25mm)

Substrate: Stainless steel plate

Backing: Aluminum foil (0.13 mm thickness)

Application condition:

1 pass back and forth with 5kg roller Bonding temperature: 23degreeC/50%RH

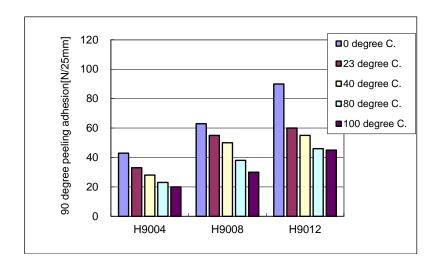
Curing condition:

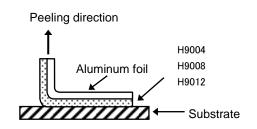
23degreeC/50%RH x 30 min

And measurement temperature x 30 min

Peeling speed: 300mm/min. Peeling angle: 90 degree

Measurement condition: 0,23,40,80,100 degreeC





#### Shear strength by temperatures

Measurement to	emperature	H9004	H9008	H9012
	0°C	106	62	80
Shear strength	23°C	97	52	40
[N/cm²]	40°C	59	36	33
	80°C	37	29	20
	100°C	30	25	19

(Unit: N/cm<sup>2</sup>)

Substrate: Stainless steel plate

Tape area: 25mm x 25mm

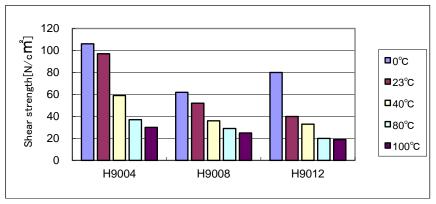
Application condition: 1 pass back and forth with 5kg roller

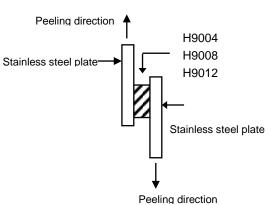
Bonding temperature: 23degreeC/50%RH

Curing condition: measurement temperature x 30 min

Peeling speed: 50mm/min.

Measurement condition: 0,23,40,80,100 degreeC





#### H9004, H9008, H9012 10-P-0113\_E (3/5)

**Notes:** This data represents examples of measured values, and not guaranteed values. They do not guarantee compatibility with the applications described in these documents. Please confirm compatibility with your application prior to use. We retain all rights, including copyrights, for the contents of these documents. Copying, reprinting and use for purposes other than originally intended are strictly prohibited without our prior expressed permission. Contact details are provided at the end of this document. Please do not hesitate to contact us for any inquiry.

# **Nitto Denko Corporation**



# **Product Data Sheet**

#### Time proof (Shear strength)

Evaluation	H9004	H9008	H9012
Initial (23°C x 30minutes)	97	52	40
Ordinary state (23°C x 24hours)	110	74	55
Heat resistance (80°Cx 250hours)	160	150	136
Water resistance (40°C hot water x 250hours)	160	75	69
Thermal cycle resistance*	95	76	62

(Unit: N/cm<sup>2</sup>)

Substrate: Stainless steel plate Tape area: 25mm x 25mm Application condition:

1 pass back and forth with 5kg roller Bonding temperature: 23degreeC/50%RH Curing condition: 23degreeC/50%RH x 24hours

And each condition(See the left table) (Initial: 23degreeC/50%RH x 30min)

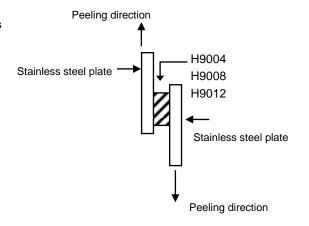
Peeling speed: 50mm/min.

Measurement condition: 23degree C/50%RH

\*Condition of thermal cycle

10 cycles  $80^{\circ}$ C × 16hours  $\Rightarrow$  23°C × an hour  $\Rightarrow$  50°C × 98%RH × 24hours

 $\Rightarrow$  23°C × an hour  $\Rightarrow$  -30°C × 8hours  $\Rightarrow$  23°C × an hour



#### Holding power(Amount of transformation)

Measurement temperature	H9004	H9008	H9012
80 degree C.	0.4	1.0	2.0
amount of transformation	0.4	1.0	2.0

(Unit: mm)

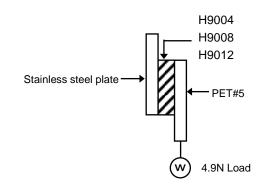
Substrate: Stainless steel plate Backing: Polyester film #50 Tape area: 10mm x 20mm

Application condition: 1 pass back and forth with 5kg roller

Bonding temperature: 23degreeC/50%RH Curing condition: 23degreeC/50%RH x 24hours

Load: 4.9N

Measurement temperature: 80 degree C. Measured amount of transformation after 2hours



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#### **Precautions**

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#### Safety Precautions

- 1. Before using the tape, thoroughly check that if the tape is suit your intended use (purpose and conditions). If you put the tape under the improper application condition, it is likely cause severe troubles such as applied components falling due to external stress or vibration, exterior parts falling while moving, etc. Please use the tape adheres rigidly to the following 'Cares When Using or Storing'.
- 2. Hands, fingers or any other parts may be injured by the edges of the tape, its separator (liner film), the core, etc. Take proper precautions such as wearing protective gloves or its substitution when handling.

#### •Cares When Using or Storing

1. The tape is hardly applied to exterior parts such as rubber, polypropylene, polyethylene and vinyl chloride. It is advisable to check in advance the applicability.

(We suggest that those substrates should be treated with primer.)

In addition, the adhesion property might become lower as time passed depending on the exterior parts that include plasticizer a lot. Please due confirm in advance.

- 2. Remove oil, moisture and dirt from the adherent surface to which the tape is applied. If the dirt is strong, remove with some solvent.
- 3. Use the tape preferably on flat surface. Exterior parts may fall if these are applied on uneven, rough or curved surface since bonding area is not enough.
- 4. Initial adhesive strength might be lower since the tape becomes hard at low temperature environment such as winter season. For such cases, we recommend that tape and your substrate are warmed at around 15 degree C to 40 degree C before application. Please also pay attention to a type of substrate and an environment that condensation occurs.
- 5. The adhesive of the tape is pressure-sensitive adhesive. Apply an adequate pressure after the tape is applied.
- 6. Do not redo attaching the tape. Once it is removed, the adherent surface becomes rough and original adhesive strength may not be obtained.
- 7. The tape must be left untouched for several hours after it is applied until it is securely bonded. Please avoid putting and using the tape with high power.
- 8. Store the tape indoors as delivery-packed state at normal temperature and normal humidity so that it is not affected by direct sunlight.
- 9. Be sure to keep the tape in its box when not using.

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