

Metal Foil Adhesive Tape

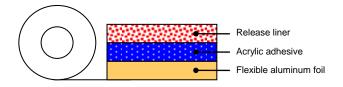
# **NITOFOIL AT-30/50/80**

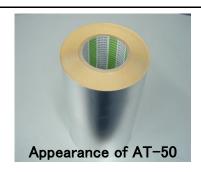
#### **Outline**

NITOFOIL AT Series is a single coated adhesive tape with release liner consisting of acrylic adhesive with flexible aluminum foil.

## **Structure and Products lineup**

#### Structure of NITOFOIL AT-30/50/80





| Item Number                              |                      | AT-30        | AT-50        | AT-80        |
|--|----------------------|--------------|--------------|--------------|
| Tape thickness [Excluding release liner] |                      | 0.08mm       | 0.10mm       | 0.13mm       |
| Aluminum foil thickness                  |                      | 0.03mm       | 0.05mm       | 0.08mm       |
| Surface of aluminum (Appearance)         |                      | Matte finish | Matte finish | Matte finish |
| Size                                     | Available width [mm] | 50-450       | 50-960       | 50-480       |
|  | Standard length      | 50m          | 50m          | 50m          |

\*For details, please contact the department in charge of the product.

#### **Features**

- Provides stable adhesive properties to metals, plastics and other substrates.
- Good holding properties.
- Protected with a release liner enable fabrication easily.
- Can be fabricated easily enabled by a release liner protection.
- The ten hazardous materials restricted by the RoHS directive are not compounded.

# <u>Applications</u>

- Bonding and sealing of joint part of duct and metallic pipes.
- Fixing of tubes for heating and cooling.

NITOFOIL AT-30/50/80 Series 10-P-0205\_E (1/4)

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## **Properties**

180 degree peeling adhesive strength for each substrate

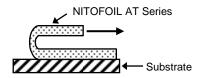
| Substrate             | AT-30 | AT-50 | AT-80 |
|-----------------------|-------|-------|-------|
| Stainless steel plate | 17.5  | 18.5  | 20.0  |
| Aluminum plate        | 16.7  | 18.7  | 20.5  |
| ABS plate             | 16.2  | 17.4  | 18.0  |
| PSt plate             | 16.5  | 16.9  | 18.5  |
| Phenolic plate        | 15.2  | 16.6  | 17.5  |

(Unit: N/20mm) Sample width: 20 mm Press condition:

1 pass back and forth with a 2kg roller at 23degreeC/50%RH

Applying condition:

23degreeC/50%RH x 30 min Peeling speed: 300 mm/min Peeling angle: 180degree Measurement temperature: 23degreeC/50%RH



180 degree peeling adhesive strength for each temperature (Pressed at 23 degree C)

| Measurement temperature | AT-30 | AT-50 | AT-80 |
|-------------------------|-------|-------|-------|
| 0 degree C              | 19.0  | 20.0  | 21.0  |
| 23 degree C             | 17.5  | 18.5  | 20.0  |
| 40 degree C             | 13.5  | 15.0  | 16.5  |
| 60 degree C             | 10.0  | 11.5  | 13.0  |
| 80 degree C             | 6.0   | 8.0   | 10.0  |

(Unit: N/20mm)

Substrate: Stainless steel plate Sample width: 20 mm Backing material: PET#25

Press condition:

1 pass back and forth with a 2kg roller at 23degreeC/50%RH

Applying condition:

Measurement temperature x 30 min

Peeling speed: 300 mm/min
Peeling angle: 180 degree
Measurement temperature:
0, 23, 40, 60, 80 degree C



# **Product Data Sheet**

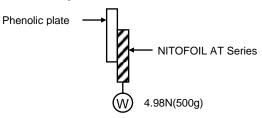
### Holding power

| Item number | Load shift distance |  |
|-------------|---------------------|--|
| AT-30       | 0.4                 |  |
| AT-50       | 0.4                 |  |
| AT-80       | 0.4                 |  |

(Unit: mm/hr)
Substrate: Phenolic plate
Applying condition:

Measurement temperature x 30min Measurement temperature: 40 degree C Application area: 20mm x 10mm

Load: 4.98N(500g) Loading time: One hour



#### Tensile strength

| Measurement Item          | AT-30 | AT-50 | AT-80 |
|---------------------------|-------|-------|-------|
| Tensile strength [N/20mm] | 39    | 68    | 117   |
| Elongation at break [%]   | 3.4   | 5.0   | 10.0  |

Sample width: 20mm
Tape length: 150mm
Peeling speed: 30mm/min

Measurement temperature: 23°C/50%RH

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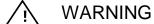
# Precautions when using

- Remove all oil, moisture and dirt from the surface of the substrate before applying.
- Since the tape is pressure-sensitive adhesive, be sure to apply enough pressure with a roller or press when applying. Otherwise it might be affected to its properties and appearance.
- The tape may not adhere well to extremely uneven or distorted surfaces. Enough Leveling off the surface should be required before applying.
- It takes certain time to get full adhesive strength after applying, keep away the tape from any stress for a several hours after applying.

## Precautions when storing

- Please be sure to keep the tape in its box when not using.
- Please keep in a cool and dark place away from direct sunlight.

## Safety precautions



- 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 which it is applied 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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