

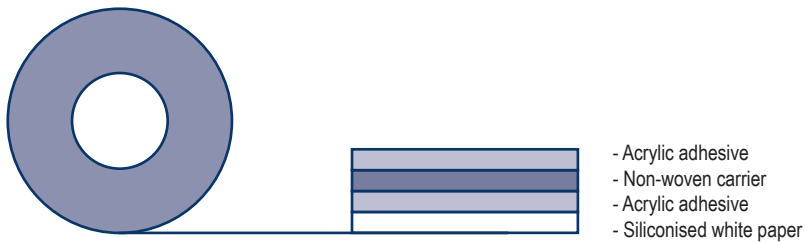
Product: **500**

Productgroup: **Bonding & Joining**

## General description

Nitto double-coated tape 500 consists of a flexible non-woven tissue carrier impregnated with Nitto's own specifically designed adhesive. The synthetic resin adhesive is suitable for a wide variety of mounting applications.

## Construction



## Characteristics

Nitto double-coated tape 500 allows a firm bond between two different materials, even when dimensional change occurs due to thermal shock (eg. metal and plastic). The reliable adhesive assures good workability on multiple substrates used in different applications. The modified acrylic pressure sensitive adhesive allows an excellent long term bond.

## Application

Nitto double-coated tape 500 is specifically designed for bonding nameplates, metal sheets, plastic plates, foam materials and molds, mainly used in electrical appliances, automotive, office automation equipment and consumer electronics devices.

## Features

- multi purpose
- good workability
- good adhesion on multiple substrates
- excellent ageing properties
- excellent temperature cycle resistance

## Technical Properties

### General physical properties

|                                  |                               | Test method          |
|----------------------------------|-------------------------------|----------------------|
| Adhesive type                    | Modified acrylic              |                      |
| Tape thickness*                  | 0.16 mm                       | NITTO 01B            |
| Release liner type / colour      | Siliconised white paper       |                      |
| Release liner thickness / weight | 0.08 mm - 93 g/m <sup>2</sup> | NITTO 01G            |
| Carrier type                     | Non-woven                     |                      |
| Unwind force                     | 10 cN/50 mm                   | NITTO 35A            |
| Release value                    | 40 cN/50 mm                   | NITTO 36A            |
| Adhesion to stainless steel      | 1100 cN/20 mm                 | NITTO 15A            |
| Creep on BA-steel                | 1 mm                          | NITTO 62A            |
| Shear                            | 510 N/4cm <sup>2</sup>        | NITTO 73A (BA steel) |

\* tape thickness = total tape thickness without liner

### Performance properties

| Adhesion        |          |      |        | (test method: NITTO 15A)  |      |      |
|-----------------|----------|------|--------|---------------------------|------|------|
|                 | 2B steel | PC   | PVC    | PMMA                      | PET  | PP   |
| cN/20 mm        | 1100     | 1200 | 1200   | 1200                      | 1300 | 1200 |
| Cohesion        |          |      |        |                           |      |      |
| Heat resistance |          |      | 120° C |                           |      |      |
| WAPO            |          |      |        | (test method: NITTO 4084) |      |      |
| PP              |          |      | 10 min |                           |      |      |
| ABS             |          |      | 40 min |                           |      |      |
| BA steel        |          |      | 3 min  |                           |      |      |

### Application guidelines

- The surface to be bonded must be clean i.e. free of dust, release agents, processing oils and grease.
- The temperature of the application should not be below the dew point of the surrounding air. The warmer the tape the better the adhesive will wet out and consequently the higher the immediate adhesion will be.
- To ensure optimal anchorage of the tape to foam attention should be paid to the lamination pressure, temperature and time.

Our technical center is always at your disposal for special application requests.  
Please contact us to make an appointment.

### Precautions

All products manufactured by NITTO EUROPE NV are guaranteed to be free from defect at the time of shipping when tested according to NITTO EUROPE NV product specifications. Properties of the products are susceptible to change due to various influences such as composition and condition of the substrate, impurities in or on the substrate, temperature and humidity of storage and the surrounding environment during application etc. When the NITTO product is used in combination with other material, the user shall assure by his own tests the compatibility of the NITTO product in the resulting combination and whether the combination results in the expected performance.

### Packaging and storage

The product should be protected against direct sunlight and extremes in temperature and humidity and stored upright in its original packaging. Once removed from its packaging, it should be protected against dust and other impurities.

### Test methods and results

The properties of these products are determined in accordance with NITTO test methods. Detailed description of these methods are available on request. The above figures are average values, established to our best knowledge, but not to be used for specification purpose.

Edition: November 2004  
Code: DS/08.01/E4 500 ENG

Nitto Europe NV has obtained following certificates:

