

Product: **SWT 10T+R**

Product group: **Semiconductor Wafer Processing Tapes**

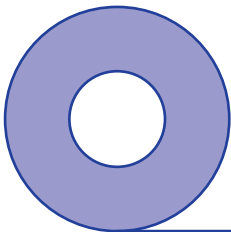
This datasheet contains provisional product information and is therefore subject to change. The product is in a test phase and is not yet released for commercial use. Consequently the product described herein may be modified or discontinued without notice.

## PROVISIONAL

### General description

Nitto Semiconductor Wafer Tape SWT 10T+R is designed for semiconductor dicing processes. This product consists of a clear transparent PVC film coated with a pressure sensitive acrylic-based adhesive manufactured in clean room environment. For easy unwind, the backing of the PVC-film is coated with a silicone release. The product is wound on a plastic core. Rolls are individually packed in a double polyethylene anti-static bag and foreseen with lot number.

### Construction



- Pressure sensitive acrylic-based adhesive
- Clear transparent PVC film (better visual inspection)
- Silicone release coating

### Characteristics

SWT10T+R has an ideal adhesion level to keep the wafer on place during wafer dicing. The tape has an excellent deformation behaviour and elongation to allow ideal stretching during wafer processing. The thicker base-film allows deeper dicing of the dicing blade to:

1. avoid top-bottom chipping during dicing process
2. can easily support thick and heavy wafers
3. positive influence on dicing blade lifetime
4. suitable for dicing saws with higher depth tolerance
5. improved yield during dicing process

### Application

Nitto Semiconductor Wafer Tape SWT 10T+R is an ideal product for processing semiconductor wafers, to be applied on the backside of the wafer (non-active side).

### Features

- excellent deformation behaviour, even with thicker base film
- excellent adhesion level
- easy unwind
- recyclable
- clean room product
- REACH compliant

### Technical properties

		Test method
Film type	Plasticized PVC Film	
Adhesive type	Acrylic-based	
Total thickness	130 µm	EN 1942
Carrier thickness	120 µm	
Adhesive thickness	10 µm	
Adhesion to Si-wafer	120 cN/20 mm	JIS Z 0237
Measured on CZ-N Polished Wafer 4 inch (100) 2.5-3.5 (Shinethu Handoutai co.). Peel-off angle 90°.		
Unwind force	60 cN/20 mm	EN 1944
Tensile strength MD	90 N/20 mm	EN 14410
Elongation MD	270 %	EN 14410
Ionic Impurities	< 3 ppm	Ion Chromatography Analysis
(Na+, K+, Cl-, NO2-, NO3-, PO43-, SO42-)		
Colour	Transparent	
Transport and storage conditions	Temperature 15 to 30°C Relative humidity 40 to 75% RH	

CAUTION: The above are typical values and should not be used in writing specifications. Details from the test methods are described on the customer product specification.

### Warranty

The product is guaranteed to be free from defect in material and workmanship and will be suitable for use for a minimum period of 6 months after delivery as indicated on the packaging, subject to the conditions set out herein.

### Availability

Widths: 125 up to 400 mm                      Lengths: 100 m

### Application guidelines

- The tape should be applied to clean and dry surface by automatic mechanical means.
- In order to avoid entrapped air-bubbles and excessive tension the customer should apply appropriate lamination conditions.
- The best lamination conditions are obtained at a temperature between 15°C and 40°C.
- SWT 10T+R is not designed to apply on the active side of the wafer during wafer processing.
- Please be aware that there is a possibility of minimal silicone contamination from the tape.

If you require additional information on technical properties and application as well as product sampling or testing, please contact your local Nitto sales office.

### General conditions of use and precautions:

The properties of the product might be adversely affected by various elements such as composition, condition and surface of and impurities in or on the substrate, temperature and humidity during storage, the surrounding environment at and after application and time of exterior use. When the product is used in combination with another material or process, the user shall assure the compatibility of the product in such combination and whether this combination results in the expected performance. The same principle applies in the event of product use in extreme conditions or circumstances, whether at or after the moment of application, including extended exposure to sunlight or extreme temperatures and pressure.

### Packaging, transport and storage:

During transport and storage the product should always be protected against direct sunlight and extremes in temperature and humidity and contained in its original packaging. Once removed from its packaging, it should be promptly applied and remain shielded from direct sunlight and extreme temperature as well as protected against dust and other impurities.

### Liability:

Except for its wilful misconduct, Nitto Belgium's liability shall be limited to a replacement, a reimbursement or an additional delivery of the product, and shall not exceed the purchase price of the products. In no event shall Nitto be liable in respect of any indirect or consequential damages, including loss of profits. The above limitations of liability shall equally apply if Nitto Belgium has assisted in any manner with the selection, treatment or application of the product.

### Product information:

This datasheet provides a general description of the product properties and application scope. Full technical details in connection with this product are presented in the customer product specification, which is available upon request.

The information reflected in this datasheet is subject to change and the product described herein may be modified or discontinued without notice.

Edition: January 2017  
Code: DS/07.13/CRT SWT 10T+R ENG  
This datasheet replaces all previous versions

Nitto Belgium NV has obtained following certificates:

- ISO 9001
  - ISO 14001
  - IATF 16949
- Please check our website for applicable scope



For your local Nitto sales office, please visit our web site:  
[www.nitto.com](http://www.nitto.com)

Copyright © 2019 NITTO BELGIUM NV. All rights reserved.