

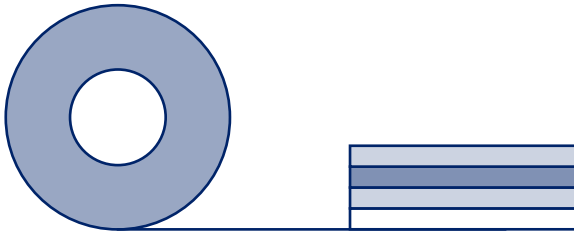
Product: **D5399 series**

Product group: **Bonding & Joining**

General description

Nitto D5399 series are double-coated tapes consisting of a modified differential acrylic adhesive coated on a transparent or black polyester carrier and protected by a polyester or paper liner, depending on the type of product.

Construction



- Side 1: Modified acrylic adhesive (foam side)
- Carrier: Transparent or black polyester
- Side 2: Modified acrylic adhesive (mounting to plastic/metal housing)
- Release liner:
- D5399: Siliconised white paper
- D5399 Tr50: Transparent polyester
- D5399 Wh50: White polyester
- D5399B: Siliconised white paper
- D5399B Tr50: Transparent polyester
- D5399B Wh50: White polyester

Characteristics

The differential adhesive system of the D5399 series provide an optimised adhesion to both foam (PU, PO) and plastic surfaces (ABS/PA). The products have an excellent converting performance during high speed automated processing.

Application

Nitto's D5399 series are recommended for mounting of small and fragile foam parts in electric/electronic equipment like mobile phones, ECU's, office automation equipment or domestic appliances. Typical application: dust gasket mounting in mobile phones.

Features

- high initial adhesion
- universal use on different foams
- easy converting and processing
- available in transparent, white and black

Converting processing advantages

	Tension control	Detection by transparency	Detection by contrast	In-line waist removal control	Colour matching	Optimal dispersion point
D5399			•			•
D5399 Tr50	•	•		•		•
D5399 Wh50	•		•	•		•
D5399B			•		•	•
D5399B Tr50	•	•		•	•	•
D5399B Wh50	•			•	•	•

Technical Properties

General physical properties

	Test method	
Adhesive type	Differential modified acrylic	
Tape thickness*	0.085 mm	NITTO 01B
Release liner type / thickness	D5399: Siliconised white paper, 0.05 mm / 65 g/m ²	
	D5399 Tr50: Transparent polyester, 0.05 mm	
	D5399 Wh50: White polyester, 0.05 mm	
	D5399B: Siliconised white paper, 0.05 mm / 65 g/m ²	
Carrier type / thickness	D5399B Tr50: Transparent polyester, 0.05 mm	
	D5399B Wh50: White polyester, 0.05 mm	
	D5399, Tr50, Wh50: Transparent polyester, 0.023 mm	
Unwind force	D5399B, Tr50, Wh50: Black polyester, 0.023 mm	
	15 cN/50mm	NITTO 35A
Release value	20 cN/50mm	NITTO 37A
Adhesion to BA-steel	Side 1: 1800 cN/20mm	NITTO 15A
	Side 2: 1400 cN/20mm	

* tape thickness = total tape thickness without liner

Performance properties

Adhesion (cN/20 mm)		(test method NITTO 15A)			
	PC	ABS	PMMA	PU foam	PO foam
Side 1				foam tearing	foam tearing
Side 2	1600	1500	1600		
Cohesion		(test method NITTO R&D)			
Heat resistance		150 °C			

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 the 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.

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Nitto Europe NV has obtained following certificates:

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