

Medical Materials & Technologies

**3M™ Microfluidic Diagnostic Tape,
9969 Adhesive Transfer Tape on Polyester Liners**



Product Description:

3M™ Microfluidic Diagnostic Tape 9969, consists of a clear pressure sensitive transfer adhesive. The adhesive is supplied between two clear, silicone coated polyester release liners. The product is designed for use in diagnostic medical devices such as test strips and lab-on-a-chip.

Features and Benefits:

- Designed for high through put converting
- Adheres to a variety of substrates
- Transparent
- Low autofluorescence
- Non-hemolytic
- Non-toxic to mammalian cells
- Low extractables
- Designed for cleaner die cutting

Composition:



A: Release Liner	2 mil (0.05 mm) Silicone coated polyester release liner
B: Adhesive	1 mil (0.025 mm) Acylate adhesive
C: Release Liner	2 mil (0.05 mm) Silicone coated polyester release liner

Roll Description:

Roll Length	Maximum 1640 yd (1500 m) ± 2%
Roll Width	Maximum 48 in (122 cm) ± 0.06 in (1.52 mm)
Splices per Roll	Maximum 3 per 500 yd (457 m) Maximum 5 per 1000 yd (914 m) Maximum 7 per 1500 yd (1372 m)

Note: Core material and diameter must be specified in special instructions of order set. Default: 3 in (76 mm) fiber core. Material options: fiber or plastic. Diameter options: 3 in (76 mm) or 6 in (152 mm).

Adhesion & Liner Release:

Adhesion to steel, 180° Peel*	29.3 oz/in (8.2 N/25.4 mm)
Adhesion to polyester, 180° Peel*	38.4 oz/in (10.7 N/25.4 mm)
Adhesion to polycarbonate, 180° Peel*	38.5 oz/in (10.7 N/25.4 mm)
Adhesion to acrylic, 180° Peel*	35.3 oz/in (9.8 N/25.4 mm)
Adhesion to polypropylene, 180° Peel*	7.7 oz/in (2.1 N/25.4 mm)
Liner Release moderate side, 180° Peel	16.9 gm/in (0.17 N/25.4 mm)
Liner Release easy side, 180° Peel	4.2 gm/in (0.04 N/25.4 mm)

Represents typical value. *Adhesion tested after 5-minute dwell time.

Biocompatibility Testing:

Product 9969 has been subjected to the following safety evaluations.

Study Type	Test Method	Standard	GLP	Results
In vitro cytotoxicity	Cell lysis & cytotoxicity	ISO 10993-5: < /= 2	Yes	Reactivity grade: 0
MEM elution	Cell lysis & cytotoxicity	ISO 10993-5: < /= 2	Yes	Reactivity grade: 0
Hemolytic Index	Interaction with Blood	ISO 10993-4: < 2%	Yes	Non-Hemolytic (index: 0.0%)
	Test article extract	ISO 10993-4: < 2%	Yes	Non-Hemolytic (index: 0.0%)

Optical Properties:

Transmission: 88.6%	Haze: 11.4%	Clarity: 84.9%
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Represents typical value based on ASTM: D1003.

Spectroscopy

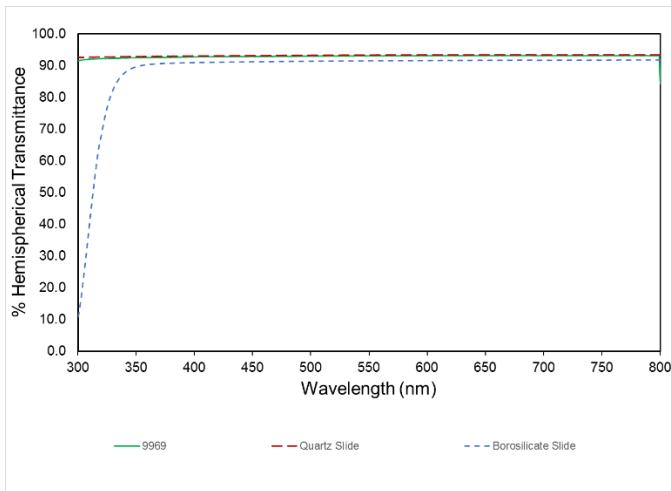
Integrated Emission Intensity

Samples were compared to known reference materials, quartz slide, borosilicate slide and 10 ppb quinine. Quinine sulfate was chosen due to its high purity and stability as a fluorescence standard reference material.

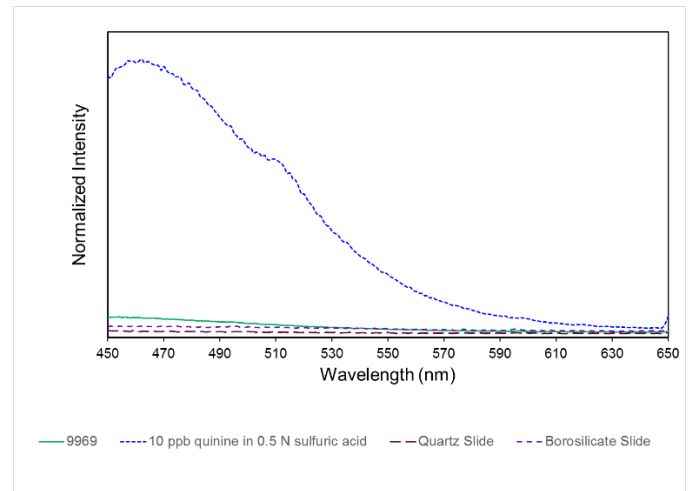
Sample	Integrated Emission Intensity/10 ⁶
Quartz Slide	2.9
Borosilicate Cover Slide	5.7
3M 9969	6.6
10 ppb quinine in 0.5 N sulfuric acid	69.3

Represents typical value * ($\lambda_{Ex} = 365 \text{ nm}$, $\lambda_{Em} = 450\text{-}650 \text{ nm}$)

UV Vis Transmittance Spectra



Average Fluorescence Spectra



Recommended Storage Conditions & Shelf Life:

Product as supplied in original packaging will maintain certified properties for a period of one year from date of manufacture when stored at room temperature 68-77 °F (20-25 °C).

Product and Safety Information: User is solely responsible for determining the suitability of 3M samples and products for the intended use including any necessary safety or toxicity assessment. 3M will provide Material Safety Data Sheets or equivalent and summary results of biocompatibility testing upon request. In every case before using any product in full scale production users should conduct their own tests to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purposes under their own operating conditions.

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Ordering Information

To place an order, call our Customer Service at: 800-742-1994 (U.S.). For all orders outside the United States, please contact your local country representative or check out 3M.com/MedTechFindaRep for your region's contact information.

To have a sales representative contact you, to request samples or clinical and safety summaries, please contact us at 3M HELPLINE 800-228-3957 (U.S.) or check out 3M.com/MedTechContactUs for your region's contact information.

Visit our website: www.3M.com/MedTech for product and services information, news, events, new product highlights or to make a direct inquiry.



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