

**Medical Materials & Technologies**

**3M™ Microfluidic Diagnostic Tape  
9982 Single-Sided Clear Polyester Tape**



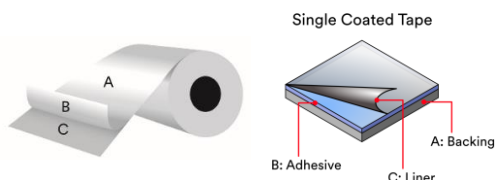
**Product Description:**

3M™ Microfluidic Diagnostic Tape 9982, consists of a clear polyester film coated on one side with a high bond pressure sensitive silicone adhesive. The tape is supplied on a clear fluoro-silicone coated polyester release liner. The product is designed for in vitro diagnostic medical devices such as test strip, lab-on-a-chip and PCR applications.

**Features and Benefits:**

- Silicone adhesive
- Adheres to a wide variety of substrates
- Transparent
- Low autofluorescence
- Designed for lab-on-a-chip and PCR
- Non-hemolytic
- Low extractables
- Non-toxic to mammalian cells

**Composition:**



A: Backing	0.92 mil (23 µm) Polyester film
B: Adhesive	2 mil (51 µm) Silicone adhesive
C: Liner	2 mil (51 µm) Clear fluoro-silicone coated polyester release liner

**Roll Description:**

Roll Length	Maximum 500 yd (457 m) ± 2%
Roll Width	Maximum 11.0 in (27.9 cm) ± 0.06 in (1.52 mm) [coat width 10.5 in (26.7 cm)] Maximum 10.0 in (25.4 cm) ± 0.12 in (3.18 mm) [slit product]
Splices per Roll	Maximum 4 per 500 yd (457 m)

Note: Rolls delivered on 6 inch (15.2 cm) plastic core

**Adhesion & Liner Release:**

Adhesion to steel, 180° Peel*	76.5 oz/in (8.37 N/cm)
Adhesion to polyester, 180° Peel*	61.5 oz/in (6.73 N/cm)
Adhesion to polycarbonate, 180° Peel*	72.8 oz/in (7.97 N/cm)
Adhesion to acrylic, 180° Peel*	78.7oz/in (8.61 N/cm)
Adhesion to polypropylene, 180° Peel*	75.7 oz/in (8.29 N/cm)
Liner Release, 180° Peel	25.3 gm/in (98 mN/cm)

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

### Biocompatibility Testing:

The adhesive used in product 9982, in conjunction with a similar product with a different backing, has been subjected to the following safety evaluations.

Study Type	Test Method	Standard	GLP	Results
In vitro cytotoxicity	Cell lysis & cytotoxicity	ISO 10993-5: $\leq 2$	Yes	Reactivity grade: 0
MEM elution	Cell lysis & cytotoxicity	ISO 10993-5: $\leq 2$	Yes	Reactivity grade: 0
Hemolytic Index	Interaction with Blood	ISO 10993-4: $< 2\%$	Yes	Non-Hemolytic (index: 0.8%)
	Test article extract	ISO 10993-4: $< 2\%$	Yes	Non-Hemolytic (index: 0.3%)

### Optical Properties & Spectroscopy:

Transmission: 87.2%	Haze: 4.8%	Clarity: 98.0%
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Represents typical value based on ASTM: D1003.

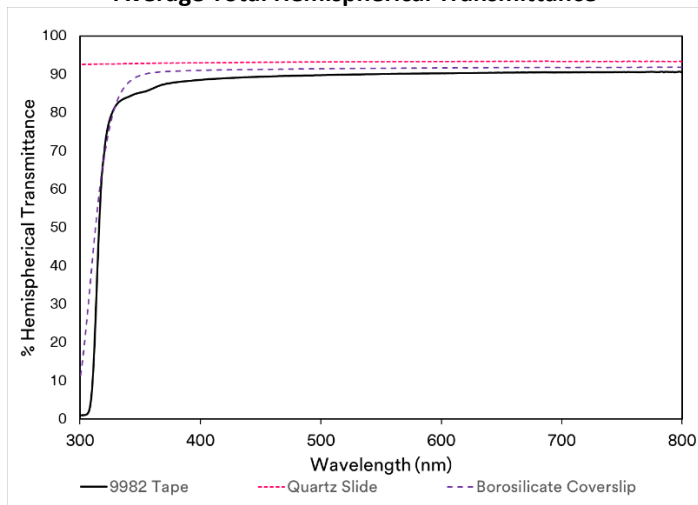
### Integrated Emission Intensity

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.

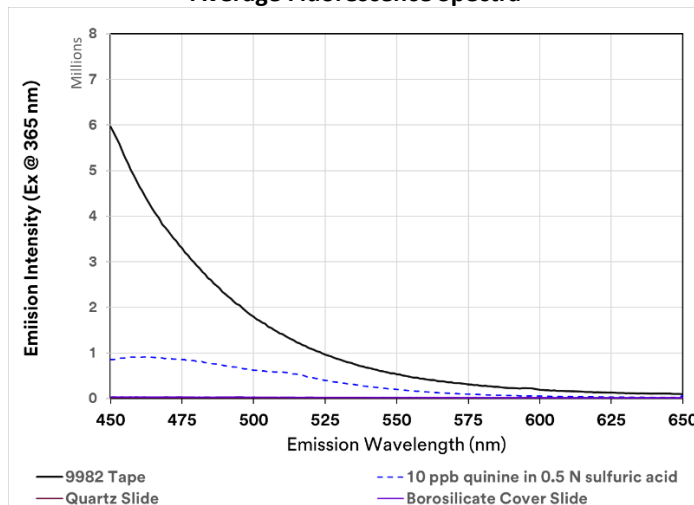
Sample	Integrated Emission Intensity/ $10^6$
Quartz Slide	2.9
Borosilicate Cover Slide	5.7
3M 9982	251.4
10 ppb quinine in 0.5 N sulfuric acid	69.3

\*Sum of emission intensities over the range ( $\lambda_{EX} = 365 \text{ nm}$ ,  $\lambda_{EM} = 450\text{-}650 \text{ nm}$ )

Average Total Hemispherical Transmittance



Average Fluorescence Spectra



### Recommended Storage Conditions & Shelf Life:

Product as supplied in original packaging will maintain certified properties for a period of two years 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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