

Medical Materials & Technologies

**3M™ Microfluidic Diagnostic Film,
9938 Thin Single-Sided Hydrophilic Film**



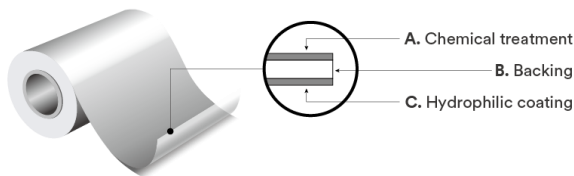
Product Description:

3M™ Microfluidic Diagnostic 9938 film consists of a transparent polyester film with one side 3M hydrophilic treatment and backside treatment designed to stabilize hydrophilic coating when coiled. The product is designed for use in health care medical devices such as test strip and lab-on-chip applications.

Features and Benefits:

- Hydrophilic
- Transparent
- Non-hemolytic
- Printable
- Non-toxic to mammalian cells
- Dimensionally stable
- Anti-fogging properties

Composition:



- A. Chemical treatment designed to protect and stabilize hydrophilic coating
- B. 100 ± 5µm [3.9 ± 0.2 mil] Transparent Polyester Film
- C. 3M Hydrophilic Treatment

Roll Description:

Roll Length	Maximum 800M (875 yd) ± 2%
Roll Width	Minimum 170 ± 3 mm (6.69 ± 0.12 in); Maximum effective (usable) 1040 ± 3 mm (40.94 ± 0.12 in)
Splices per Roll	Maximum 1 per every 400M (437 yd); up to 2 per 800M (875 yd)

Note: Supplied on 3-in (76 mm) core for slit roll / 6-in (152 mm) core for 1040mm width log-roll.

Product Properties:

Haze	Maximum 4.0%
Light Transmission	85~95%
Tensile Strength	Minimum – 15 kg/mm ² (2.13 x 10 ⁴ lb/in ²) - Machine Direction Minimum – 15 kg/mm ² (2.13 x 10 ⁴ lb/in ²) - Cross Direction
Break Elongation, %	Minimum – 80% - Machine Direction; 80% - Cross Direction
Heat Shrinkage	Maximum – 2.0% - Machine Direction; 0.5% - Cross Direction [150°C for 30 minutes]
Wet Index Value	Minimum – 36

Biocompatibility Testing:

Product 9938 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%)

Spectroscopy

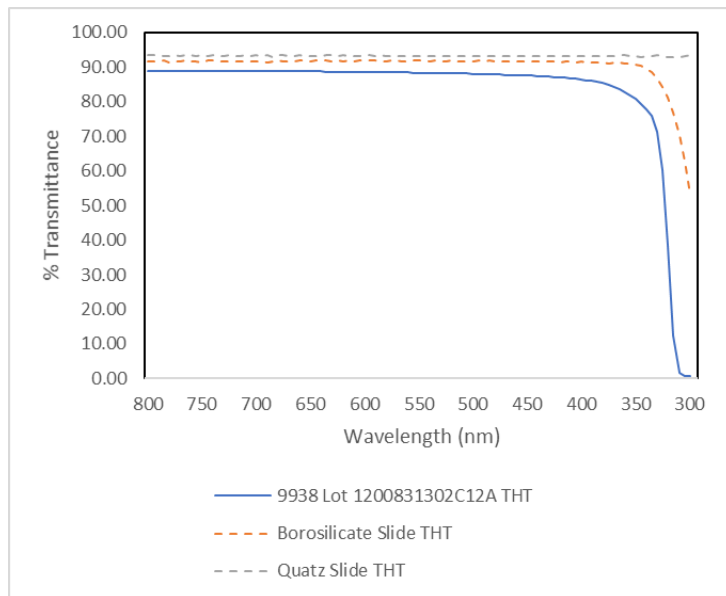
Integrated Emission Intensity

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

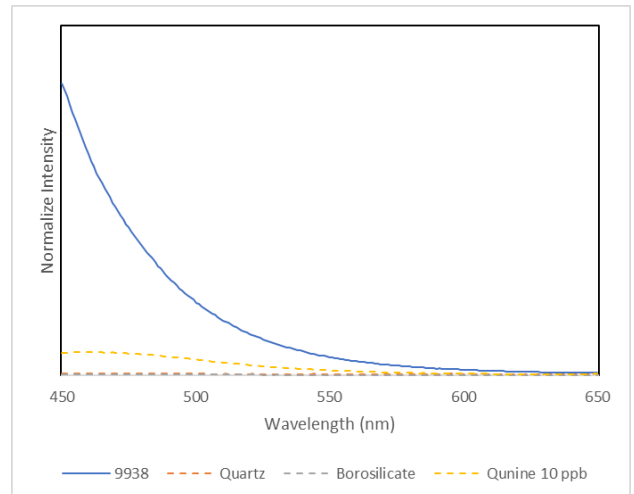
Sample	Integrated Emission Intensity/10 ⁶ *
Quartz Slide	14.6
Borosilicate Cover Slide	6.1
3M 9938	503.9
10 ppb quinine in 0.5 N sulfuric acid	82.0

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 stated test properties for a period of 18 months from manufacturing date stamped on shipping container when stored at temperatures between 10-27 C (50-80 F) and a relative humidity between 40-60 percent. Keep product in original packaging until use.

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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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.

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