

# **Medical Materials & Technologies**

# 3M™ Microfluidic Diagnostic Film, 9901Pb Thin Single-Sided Hydrophilic Film

# **Product Description:**

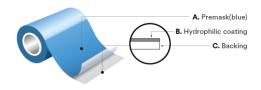
3M™ Microfluidic Diagnostic 9901Pb film consists of a transparent polyester film with one side 3M hydrophilic treatment with a blue polyethylene over mask protective film. The product is designed for use in health care medical devices such as test strip and lab-on-chip applications.

# **Features and Benefits:**

- Hydrophilic
- Transparent
- Non-hemolytic
- Printable

- Blue protective mask film
- Non-toxic to mammalian cells
- Dimensionally stable
- Anti-fogging properties

#### Composition:



- A. 48 um (2 mil) polyethylene protective film
- B. 3M Hydrophilic Treatment
- C.  $100 \pm 5 \mu m$  [3.9  $\pm$  0.2 mil] Transparent Polyester Film

#### **Roll Description:**

Roll Length	Maximum 700 m (766 yd) ± 2%	
Roll Width	Maximum 1230 ± 3 mm (48.43 ± 0.12 in)	
Splices per Roll	Maximum 1 per every 330 m (360 yd)	

Note: Supplied on 3-in (76 mm) for slit roll

#### Product Properties (without premask):

Haze	Maximum 4.0%	
Light Transmission	85~92%	
Tensile Strength	Minimum – 15 kg/mm <sup>2</sup> (2.13 x 10 <sup>4</sup> lb/in <sup>2</sup> ) - Machine Direction Minimum – 15 kg/mm <sup>2</sup> (2.13 x 10 <sup>4</sup> lb/in <sup>2</sup> ) - 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 9901Pb has been subjected to the following safety evaluations.

Study Type	Test Method	Standard	GLP	Results
In vitro cytotoxcity	Cell lysis & cytotoxicity	ISO 10993-5: = 2</td <td>Yes</td> <td>Reactivity grade: 0</td>	Yes	Reactivity grade: 0
MEM elution	Cell lysis & cytotoxicity	ISO 10993-5: = 2</td <td>Yes</td> <td>Reactivity grade: 0</td>	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**

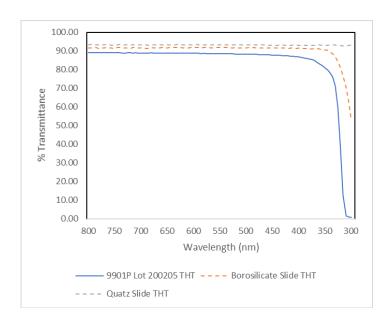
#### **Integrated Emission Intensity**

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.

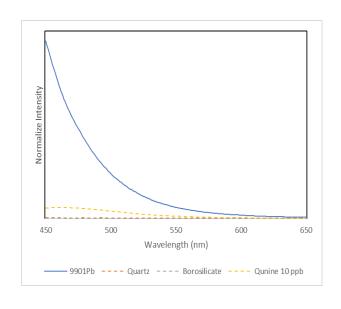
Sample	Integrated Emission Intensity/10 <sup>6*</sup>		
Quartz Slide	14.6		
Borosilicate Cover Slide	6.1		
3M 9901Pb	548.1		
10 ppb quinine in 0.5 N sulfuric acid	82.0		

Represents typical value \* ( $\lambda_{Ex}$  = 365 nm,  $\lambda_{Em}$  = 450-650 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 24 months from manufacturing date stamped on shipping container when stored at temperatures between 50-80 F (10-27 C) 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. **Notice:** Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement, or recommendations to practice any invention covered by any patent, without authority from the owners of this patent.

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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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