

# Oleophobic PTFE Membrane for Venting

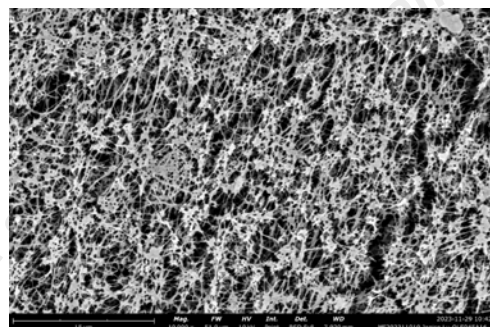


**OUR MEMBRANE FOR YOUR SOLUTIONS**

MS-TM-E-4005-EN A/1

## Description

MS offers modified oleophobic membranes made from expanded polytetrafluoroethylene (ePTFE) that meet the American Association of Textile Chemists and Colorists (AATCC) test standard 118-1989 for oil repellency. Low surface tension fluids, such as oils, fuels, chemicals, detergents, surfactants, or “cleaning agents” will wet out hydrophobic membranes and prevent air flow. Whereas, oleophobic membranes will resist penetration of these fluids, by forcing them to bead-up and roll off, and allow the passage of gases. Oleophobic membranes are the ideal solution for gas and venting applications where low surface tension fluids are present. Our oleophobic membrane meets the requirements of PFAS regulations and has a high oil repellent grade, providing you with multiple solutions.



## Features

- Max oleophobic rating: 8 (AATCC118)
- Excellent breathability
- High temperature resistance
- Good uniformity
- High mechanical strength
- PFAS free

## Oil Rating

Table 1. Standard test liquids

Oil Rating	Test Fluid	Surface Tension (dyn/cm)
3	Hexadecane	29
4	Tetradecane	27
5	Dodecane	24.5
6	Decane	24
7	Octane	21
8	Heptane	19.5
9	Hexane	18

## Applications

- Coalescing
- Liquid storage container venting
- Sensor protection
- Electronic enclosures
- Control units
- Protect components from chemical agents
- Automotive, environmental, chemical processing, microelectronics

Table 2. Surface tensions of some typical fluids.

Fluid	Test Fluid
Water	73
10% Methyl Alcohol in Water	59
Castor Oil	36
Benzene	29
Ethyl Alcohol	24
Acetone	24
Methanol	24
Isopropyl Alcohol	22

## Specification

Membrane Type	Pore Size (μm)	Thickness (μm)	Air Flux (L/min/cm <sup>2</sup> @7kPa)	Water Entry Pressure (Mpa)	Oleophobic Rating	Notes
Supported	0.22	130-230	≥0.2	≥0.30	≥5	Can provide PFAS free products
	0.45		≥0.4	≥0.12	≥5	
	1.0		≥0.8	≥0.08	≥5	
	3.0		≥1.2	≥0.06	≥6	
	5.0		≥3.0	≥0.01	≥7	
	10.0		≥5.0	/	8	

## Ordering Information

Series Code	Pore Size	Support Material Code
OLE	010=0.1μm 022=0.22μm 045=0.45μm 100=1.0μm 300=3.0μm 500=5.0μm	A12 (100-200μm) —PP Support A16 (200-300μm) —PP Support H60 (170-230μm) —PE/PP Support H80 (230-280μm) —PE/PP Support B51 (130-170μm) —PET Support N (5-30μm) —Without Support



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