MS® Oleophobic PTFE Membrane

Membrane Solutions

DESCRIPTION

The hydrophobic and oleophobic PTFE membrane has strong hydrophobic and oleophobic performance, which can prevent the penetration of pollutants with low surface tension, including detergent, detergent, oil and chemicals.

The oleophobic test is conducted according to The American Association of Textile Chemists and Colorists (AATCC) 118-1989 standard. The test method is to drop the liquid with known surface tension on the surface of the membrane material and observe the wetting condition. This process is the process of liquid entering the membrane structure. The oleophobic grade is the liquid that cannot wet the minimum surface tension of the film material.



Oleophobic Rating	Liquid for Testing	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

Table 1. Standard liquid for testing

Liquid	Surface Tension
Water	73
10% Methanol in Water	59
Castor Oil	36
Benzene	29
Ethanol	24
Acetone	24
Methanol	24
isopropanol	22

Table 2. Surface tension of several typical liquids

FEATURES

- Oleophobic rating up to: 9（AATCC118）
- Excellent breathability
- High temperature resistance
- Good uniformity
- High mechanical strength

APPLICATION

- Organic gas filtration
- Removal of gases from biomass liquids
- Removal of volatile components in solutions
- Reservoir breathing
- Sensors
- Electronic components
- Control units
- Any parts exposed to chemical reagents

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SPECIFICATION

Proctuct Name	Pore Size (μm)	Width (mm)	Water Pressure Resistance (kPa)	Water Column Height (m)	Air Permeability (L/min/cm² @7kPa)	IP Class	Temperature-resistant	Oleophobic Grade
Oleophobic PTFE	0.1	260-508	≥650	65	≥0.2	IP68	T_{min}= -40 ℃ T_{max}= 260 ℃	Grade 6~9
	0.2		≥450	50	≥0.35	IP68		
	0.45		≥250	30	≥0.5	IP68		
	1.0		≥100	12	≥1.0	IP67/68		
	3.0		≥80	10	≥1.5	IP66/67		
	5.0		≥5	1	≥5	IP66		

ORDERING INFORMATION

OLE — 045 — B51

Series Code	Pore Size	Support Material Code
OLE - oleophobic	010=0.1 μm 022=0.22 μm 045=0.45 μm 100=1.0 μm 300=3.0 μm 500=5.0 μm	A12——PP support A16——PP support H60—— PP/PE support H70—— PP/PE support B51——PET support

* If you have special requirements for width and pore size, please contact us: info@membrane-solutions.com

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