



How does it work?

MedArray's PermSelect® hollow fiber membranes are made of homogeneous silicone (polydimethyl siloxane), one of the most gas-permeable materials available.

Unlike membranes which separate based on size of particles, a silicone membrane separates based on differences in solubility in and diffusion through the membrane, making it complementary to many existing techniques.

*Silicone Hollow Fiber Membranes*

MedArray's patented process creates hollow fiber membranes out of PDMS silicone. Silicone hollow fibers allow only gas to transfer; the dense (non-porous) membrane protects the system from leaking.

Since 2000, MedArray has partnered with some of the world's leading researchers to develop silicone membranes for challenging separations.



**APPLICATIONS**

- Liquid degassing and gassing
- Gas separation
- VOC concentration and removal
- Humidity control
- Pervaporation

**SPECIFICATIONS**

		PDMSXA-10	PDMSXA-2500	PDMSXA-8300	PDMSXA-2.4
<b>Membrane Type</b>		Dense			
<b>Membrane Material</b>		PDMS (Silicone)			
<b>Membrane ID</b>	µm (in)	200 (0.0079)			
<b>Membrane OD</b>	µm (in)	300 (0.0118)			
<b>Fiber Count</b>	#	30	3,200	10,600	34,000
<b>Membrane Area</b>	m2 (ft2)	0.0010 (0.0108)*	0.25 (2.69)	0.83 (8.9)	2.4 (25.8)
<b>Module Length</b>	cm (in)	9.3 (3.67)	14 (5.5)	14 (5.5)	14.6 (5.75)
<b>Module Diameter</b>	cm (in)	0.95 (0.375)	3.175 (1.25)	5.1 (2.0)	8.25 (3.25)
<b>Fitting / Connection Size</b>	In	1/8	1/4	1/4	1/4 and 3/8
<b>Max Operating Temperature</b>	°C (°F)	90 (194)			
<b>Max Shell Side Pressure</b>	bar (psi)	1 (15)			
<b>Max Lumen Side Pressure</b>	bar (psi)	3 (45)			
<b>Max Transmembrane Pressure (inside-out / outside-in)</b>	bar (psi)	3 (45) / 1 (15)			
<b>Module Material</b>		Polycarbonate			
<b>Potting Material</b>		Polyurethane			
<b>Typical Liquid Flow</b>	l/min (gpm)	< 0.1 (< 0.026)	0.2-1.9 (0.05-0.5)	1-6 (0.25-1.6)	2.75-19 (0.75-5)