

DuraMem® Products



DuraMem® membranes are solvent-resistant polymeric membranes designed to be used in Organic Solvent Nanofiltration (OSN) applications. They perform best in polar and polar aprotic solvents and have a wide cutoff range, from 150 to 900+Da. Membranes are usually used in flat sheet format for lab scale membrane screening tests and in spiral wound format for pilot and commercial processes. If you are new to OSN, please contact us for more information.

SPECIFICATIONS DURAMEM® 150, DURAMEM® 200, DURAMEM®300, DURAMEM® 500, DURAMEM® 900

General

- Membrane Material: Modified Polyimide
- Flat Sheet: 210 x 297 mm
- Modules:

Main applications	Main benefits
Removal of polymeric impurities	Increased product value
Product purification	Reduced operating cost
Monomer/dimer separation	Reduced processing time
Molecular fractionation	Environmentally friendly
Room temperature solvent exchange	
Catalyst recovery and recycle	
Decoloration	
Solvent recycling	

Spiral Wound	1812	2512	2540	4020	4040	8040*
Nominal Size (Dia x L)	1.8"x12"	2.5"x12"	2.5"x40"	4.0"x20"	4.0"x40"	8.0"x40"
Active Membrane Area (m ²) ¹	0.11	0.17	1.8	2.0	5.4	24.0
Typical Feed Flow (L.h ⁻¹) ²	150	500	500	1500	1500	7500
Standard Feed Spacer (all) ¹	30 mil (0.76 mm)					

* Female type of permeate tube.

SOLVENT STABILITY

- Type T1 DuraMem® Membranes
Stable in Solvents¹
 - Acetone, Tetrahydrofuran
 - Methanol, Ethanol
 - Methyl-tert-Butyl-Ether
 - Methyl-Ethyl-Ketone, Methyl-iso-Butyl-Ketone
 - Butyl Acetate, Ethyl Acetate
- Type T2 DuraMem® Membranes
Stable in Solvents¹
 - Dimethylformamide,
 - Dimethylsulfoxide,
 - N-Methylpyrrolidone
- Type T1 and T2 DuraMem® Membranes are generally stable in aqueous/organic solvent mixtures. Please contact us for more information.

USE CONDITIONS

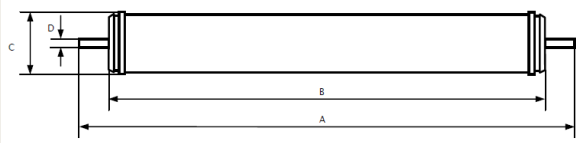
Membrane Code	DuraMem® 150	DuraMem® 200	DuraMem® 300	DuraMem® 500	DuraMem® 900
MWCO (g.mol ⁻¹) ^{2,3}	150	200	300	500	900
Maximum Pressure (bar)	60	60	60	20	20
Maximum Temperature (°C)	50 (for all)				
pH	7 (for all)				
Maximum pressure drop per element (bar)	0.5 (for all)				
Maximum permeate pressure (bar)	0.2 (for all)				

¹ Data referring to pure solvents. If you intend to use a solvent not listed above please contact us for further advice.

² Performance Data are approximate.

³ Based on rejection of styrene oligomers dissolved in toluene, MWCO = molecular weight cut-off, defined as MW at which 90% rejection is obtained from a curve of rejection versus molecular weight of styrene oligomers dissolved in toluene. See Journal of Membrane Science 291 (2007) 120–125.

DIMENSIONS



Module	A (mm)	B (mm)	C (mm)	D (mm)
1812	305	200	52	19.05
2512	305	200	63	19.05
2540	1016	910	63	19.05
4020	508	410	100	19.05
4040	1016	920	100	19.05

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