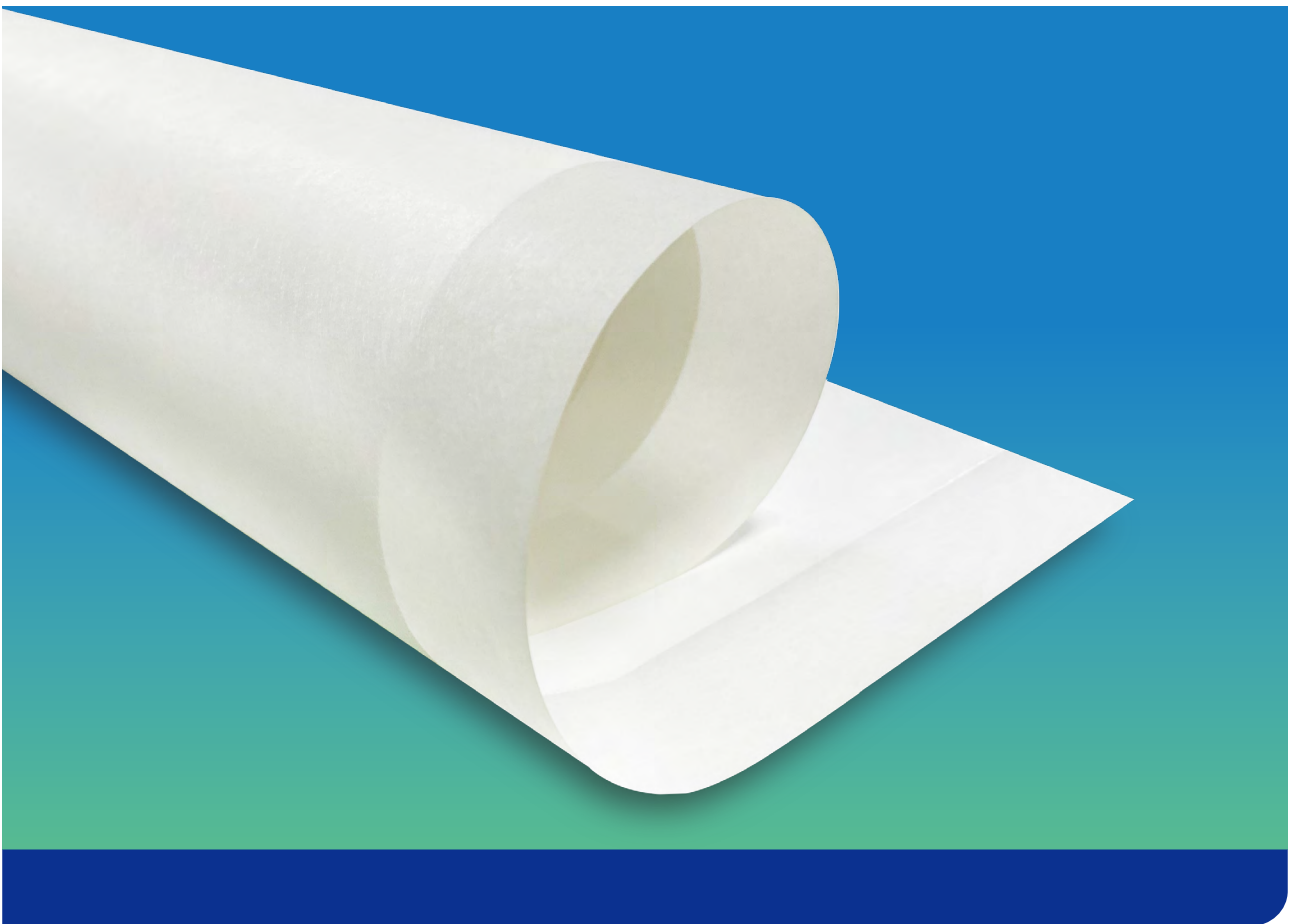


Flat Sheet Membranes



Wide range

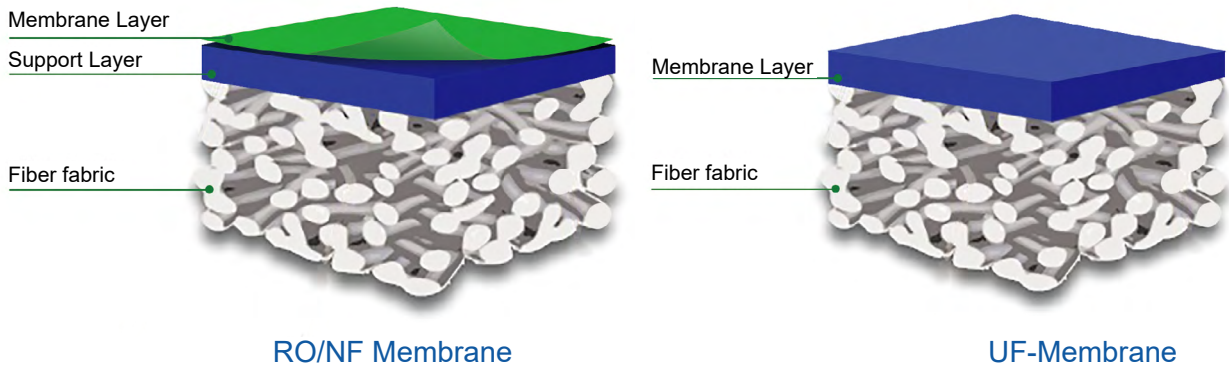


High temperature
and pH



FDA Compliant
Materials

SCHEMATIC CROSS-SECTION OF MEMBRANE



UNISOL provide flat sheet membranes with cut-offs covering the spectrum of micro-, ultra-, nanofiltration and reverse osmosis, for a wide range of applications in various kinds of materials:

- Polyethersulfone
- Polysulfone
- Polyvinylidene Fluoride
- Polyacrylonitrile
- Piperazinamide
- Polyamide

ADVANTAGES



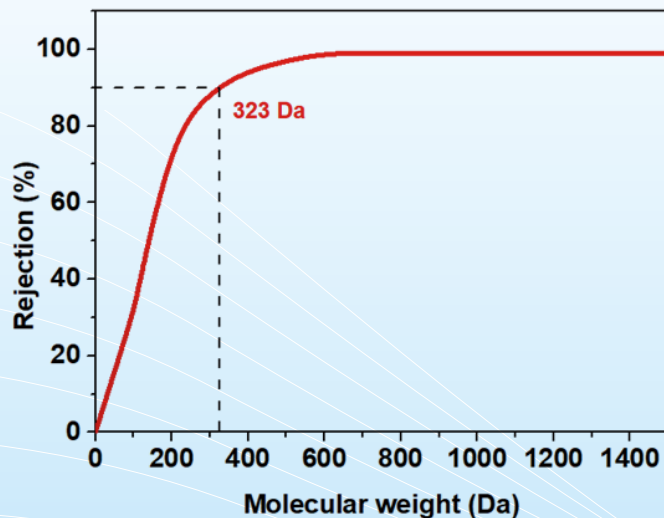
Wide range of membrane types



Resistant to high temperatures and pH



FDA Compliant Materials



Microfiltration (MF)

Membrane Model	Membrane materials	Pore size [μm]
MPV020	Polyvinylidene Flouride	0.2
MPS010	Polyethersulfone	0.1

Ultrafiltration (UF)

Membrane Model	Membrane materials	Nom. MWCO [kDa]
UPS005	Polyethersulfone	5
UPS010	Polyethersulfone	10
UPS020	Polyethersulfone	20
USP100	Polysulfone	100
UPS150	Polyethersulfone	150
UPV080	Polyvinylidene Flouride	80
UPV200	Polyvinylidene Flouride	200
UPV1000	Polyvinylidene Flouride	1000

Nanofiltration (NF)

Membrane Model	Membrane materials	Rejection [%]
NFDK	Piperazinamide	$\geq 98\%$
NFDL	Piperazinamide	$\geq 96\%$
UNF454	Piperazinamide	$\geq 94\%$
UNF604	Piperazinamide	$\geq 70\%$

Test condition: 2000ppm MgSO_4 , 7.6bar (110psi), 25°C (77 °F)

Reverse Osmosis (RO)

Membrane Model	Membrane materials	Stabilized Rejection [%]	Minimum Rejection [%]
BW3017	Polyamide	99.6% ⁽¹⁾	99.4% ⁽¹⁾
SW3013	Polyamide	99.8% ⁽²⁾	99.6% ⁽²⁾

(1) Test condition: 2000ppm NaCl, 15.5bar (225psi), 25°C (77 °F)

(2) Test condition: 32000ppm NaCl, 55bar (800psi), 25°C (77 °F)

NOTES

- Membrane development according to customized requirements is available.
- Flat sheet membranes are available in rolls stock or sample sizes for testing purposes.
- Standard roll length is 300m.
- All flat sheets can be integrated into our UNISOL spiral wound modules.



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