



**UNISOL**  
Membrane Technology

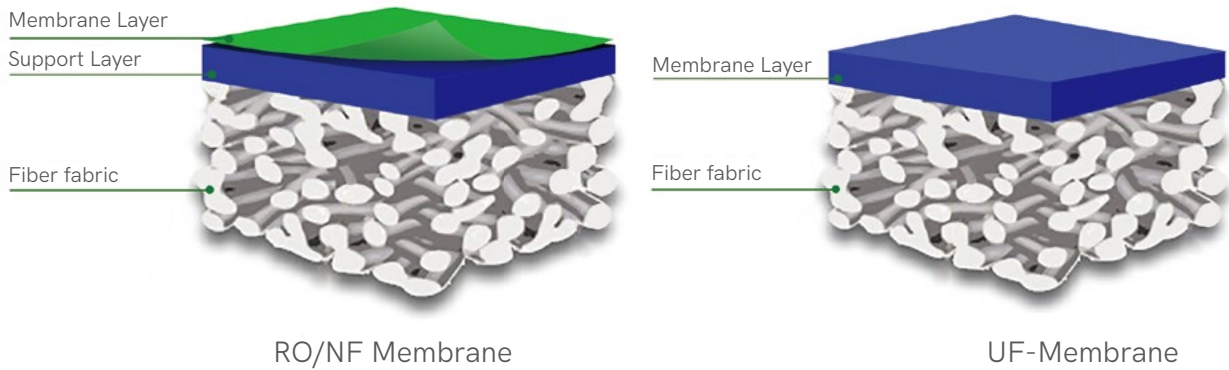


# FLAT SHEET MEMBRANES

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WIDE RANGE • HIGH PERFORMANCE • FDA COMPLIANT

## 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



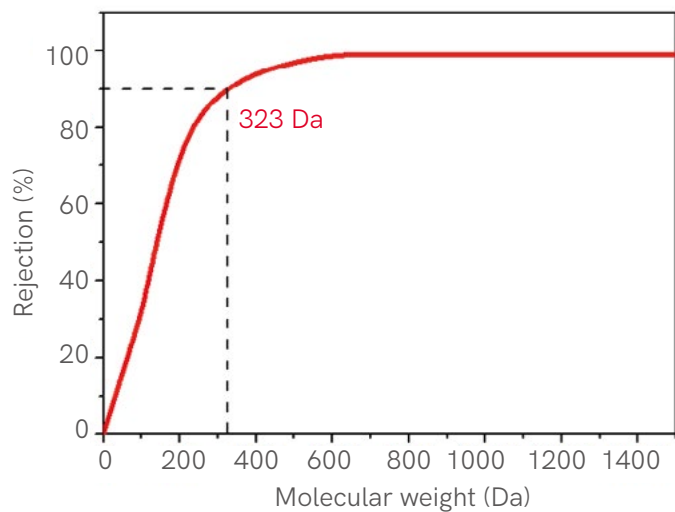
Wide range of membrane types



Resistant to high temperatures and pH



FDA Compliant Materials



## MF (Microfiltration)

Membrane Model	Membrane materials	Pore size [µm]
MPS010	Polyethersulfone (PES)	0.1
MPV020	Polyvinylidene Flouride (PVDF)	0.2

## UF (Ultrafiltration)

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

## NF (Nanofiltration)

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

Test condition: 2000ppm MgSO<sub>4</sub>, 7.6bar (110psi), 25°C (77 °F)

## RO (Reverse Osmosis)

Membrane Model	Membrane materials	Stabilized Rejection [%]	Minimum Rejection [%]
BW3017	Polyamide (PA)	99.6% <sup>(1)</sup>	99.4% <sup>(1)</sup>
SW3013	Polyamide (PA)	99.8% <sup>(2)</sup>	99.6% <sup>(2)</sup>

(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.

## WE SUPPORT YOU - WORLDWIDE!



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UNISOL MEMBRANE TECHNOLOGY reserves the right to change specifications without prior notification.  
For the latest version, please refer to the internet. [info@unisol-global.com](mailto:info@unisol-global.com)  
[www.unisol-global.com](http://www.unisol-global.com) | [www.wta-unisol.com](http://www.wta-unisol.com)

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