



FilmTec™ Membranes

FilmTec™ Tape-Wrapped Large Commercial Elements for challenging water conditions

Key Features

- Delivers consistent water quality and higher rejection and flow than previous generation FilmTec™ BW30 product
- Based on historical FilmTec™ BW30 industry-standard RO membrane with decades of proven performance
- Outstanding durability resulting in stable, long-term performance and sustainable water solutions
- Enhanced fouling protection
- Dry elements achieve quick stabilization within 30mins.
- Available in fibreglassed and 2540 version

Key Applications

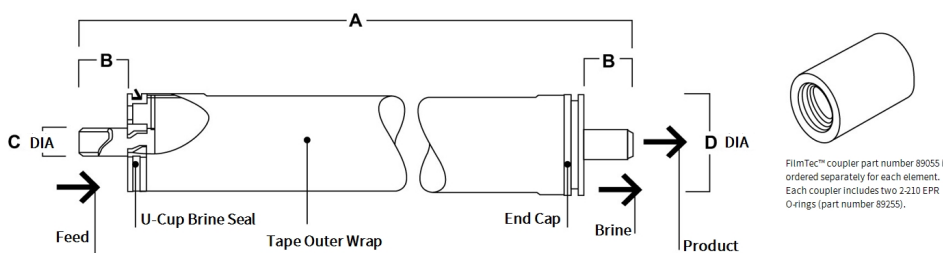
- Light industrial & Drinking water applications requiring stringent permeate quality
- Harsh feed water conditions

Typical Properties

Product	Part number	Feed Spacer Thickness (mil)	Permeate Flow Rate gpd (m ³ /d)	Stabilized Salt Rejection (%)
TW30 PRO-4040	80610	31	2,600 (9.8)	99.7
TW30 PRO-2540	80610	31	2,600 (9.8)	99.7

1. Permeate flow and salt rejection based on the following test conditions: 77°F (25°C), 15% recovery and applied pressure: 100 psig (6.9 bar) for XLE-4040 and 225 psig (15.5 bar) for both TW30 PRO-4040 and TW30 PRO-2540. Both specifications are based on a 2,000 ppm NaCl feed stream.
2. Minimum salt rejection for both TW30 PRO-4040 and TW30 PRO-2540 are 99.5%.
3. Permeate flows for individual elements may vary +/-20%.
4. For the purpose of improvement, specifications may be updated periodically.

Element Dimensions



Product	Dimensions - Inches (mm)			
	A	B	C	D
TW30 PRO-4040	40.0 (1,016)	1.05 (26.7)	0.75 (19)	3.9 (99)
TW30 PRO-2540	40.0 (1,016)	1.05 (26.7)	0.75 (19)	3.9 (99)

1. Refer to [FilmTec™ Design Guidelines for multiple-element systems of midsize elements](#) (Form No. 45-D01588-en).
2. FilmTec™ TW30-4040 and FilmTec™ XLE-4040 Elements fit nominal 4-inch I.D. pressure vessel.

Operating and Cleaning Limits

Membrane Type	Polyamide Thin-Film Composite
Maximum Operating Temperature	113°F (45°C)
Maximum Operating Pressure	600 psig (41 bar)
Maximum Feed Flow Rate	14 gpm (3.2 m ³ /hr)
Maximum Pressure Drop	13 psig (0.9 bar)
pH Range	
Continuous Operation ^a	2 - 11
Short-Term Cleaning (30 min.) ^b	1 - 13
Maximum Feed Silt Density Index (SDI)	SDI 5
Free Chlorine Tolerance ^c	<0.1 ppm

- Maximum temperature for continuous operation above pH 10 is 95°F (35°C).
- Refer to [FilmTec™ Cleaning Guidelines](#) (Form No. 45-D01696-en).
- Under certain conditions, the presence of free chlorine and other oxidizing agents will cause premature membrane failure. Since oxidation damage is not covered under warranty, DuPont Water Solutions recommends removing residual free chlorine by pretreatment prior to membrane exposure. Please refer to [FilmTec™ Design Guidelines for multiple-element systems of 8-inch elements](#) (Form No. 45-D01695-en) for more information.

General Information

- Keep elements moist at all times after initial wetting.
- If operating limits and guidelines given in this bulletin are not strictly followed, the limited warranty will be null and void.
- To prevent biological growth during prolonged system shutdowns, it is recommended that membrane elements be immersed in a preservative solution.
- The customer is fully responsible for the effects of incompatible chemicals and lubricants on elements.
- Maximum pressure drop across an entire pressure vessel (housing) is 30 psi (2.1 bar).
- Avoid static permeate-side backpressure at all times.
- Avoid any abrupt pressure or cross-flow variations on the spiral elements during start-up, shutdown, cleaning or other sequences to prevent possible membrane damage. During start-up, a gradual change from a standstill to operating state is recommended as follows:
 - Feed pressure should be increased gradually over a 30-60 second time frame.
 - Cross-flow velocity at set operating point should be achieved gradually over 15-20 seconds.
- The use of this product in and of itself does not necessarily guarantee the removal of cysts and pathogens from water. Effective cyst and pathogen reduction is dependent on the complete system design and on the operation and maintenance of the system.
- Permeate obtained from the first hour of operation should be discarded.

Important Information

- Proper start-up of reverse osmosis water treatment systems is essential to prepare the membranes for operating service and to prevent membrane damage due to overfeeding or hydraulic shock. Following the proper start-up sequence also helps ensure that system operating parameters conform to design specifications so that system water quality and productivity goals can be achieved.
- Before initiating system start-up procedures, membrane pretreatment, loading of the membrane elements, instrument calibration and other system checks should be completed.
- Please refer to the application information literature entitled [Start-Up Sequence](#) (Form No. 45-D01609-en) for more information.

Regulatory Note

This product may be subject to drinking water application restrictions in some countries; please check the application status before use and sale.



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