

Product Data Sheet Reverse Osmosis Membranes



FilmTec[™] XLE PRO-4040 & XLE PRO-2540 Element

Tape-Wrapped Low Energy Large Commercial Elements for Commercial Applications

Key Features

- The lowest pressure FilmTec[™] RO Large Commercial Element requires lower energy and provides more productivity, especially in cold waters.
- Produce good water quality at very low applied pressure for drinking water and commercial applications.

Key Applications

 Drinking and commercial water applications for plant sizes <= 2.3 m³/h (10 gpm) – Hotels, Restaurants, Cafes, Car wash, schools, refilingstations, etc.



Typical Properties

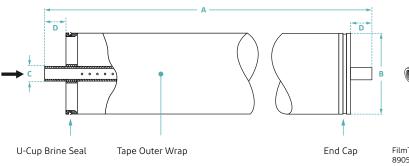
Product	Part number	Active Area ft² (m²)	Permeate Flow Rate gpd (m³/d)	Stabilized Salt Rejection (%)	Minimum Salt Rejection (%)
FilmTec™ XLE PRO-4040	12082995	85 (7.9)	2,750 (10.4)	99.0	97.0
FilmTec™ XLE PRO-2540	12082909	28 (2.6)	1,000 (3.8)	99.0	97.0

1. Permeate flow and salt rejection based on the following standard conditions: 2,000 ppm NaCl, 125 psi (8.7 bar), 77°F (25°C), pH 8 and 15% recovery.

2. Flow rates for individual elements may vary but will be no more than 20% below the value shown.

3. Sales specifications may vary as design revisions take place.

Element Dimensions



	Dimensions – inches (mm)				
	XLE PRO-4040	XLE PRO-2540			
А	40.0 (1,016)	40.0 (1,016)			
В	3.9 (99)	2.4 (61)			
С	0.75 (19)	0.75 (19)			
D	1.05 (27)	1.19 (30.2)			
ID = Inner Diameter					

1 inch = 25.4 mm

FilmTec™ coupler part number 89055 is ordered separately for each element. Each coupler includes two 2-210 EPR O-rings (part number 89255).

1. For element weight information refer to What is the weight of FilmTec™ elements as delivered? (Form No. 45-D04811-en)

2. For element packaging and shipping information refer to <u>How are FilmTec™ elements packaged and shipped?</u> (Form No. 45-D04811-en)

3. FilmTec[™] XLE PRO-4040 Elements fits nominal 4-inch I.D. pressure vessel, FilmTec[™] XLE PRO-2540 Elements fits nominal 2.5-inch I.D. pressure vessel.

Suggested Operating Conditions

Membrane Type	Polyamide Thin-Film Composite			
Maximum Operating Temperature ¹	113°F (45°C)			
Maximum Operating Pressure	600 psi (41 bar)			
Maximum Pressure Drop				
Per Element	13 psi (0.9 bar)			
Per Pressure Vessel (Maximum 2 Elements)	30 psi (2.1 bar)			
pH Range				
Continuous Operation ¹	2 - 11			
Short-Term Cleaning (30 min.) ²	1 - 13			
Maximum Feed Flow ³				
4040 Elements	14 gpm (3.2 m³/h)			
2540 Elements	6 gpm (1.4 m³/h)			
Maximum Feed Silt Density Index (SDI)	SDI 5			
Free Chlorine Tolerance ⁴	< 0.1 ppm			

- 1. Maximum temperature for continuous operation above pH 10 is 95°F (35°C).
- 2. Refer to FilmTec[™] Cleaning Guidelines (Form No. 45-D01696-en).
- For recommended feed and permeate flow rates, flux and recovery for various feed sources, refer to <u>FilmTec[™] Design Guidelines for multiple-</u> <u>element systems of midsize elements</u> (Form No. 45-D01588-en).
- Oxidation damage is not covered under warranty, DuPont recommends removing residual free chlorine by pretreatment prior to membrane exposure. Please refer to <u>Dechlorinating</u> <u>Feedwater</u> (Form No. 45-D01569-en) for more information.

Important General Information

- · Keep elements moist at all times after initial wetting.
- For successful operation of Reverse Osmosis (RO) and Nanofiltration (NF) membrane systems, the operation must follow the guidelines provided in the <u>FilmTec™ Reverse</u>.
 <u>Osmosis / Nanofiltration Elements Operation Excellence and</u> <u>Limiting Conditions Tech Fact</u> (Form No. 45-D04388-en).
- 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.
- Avoid static permeate-side backpressure at all times.
- Permeate obtained from the first hour of operation should be discarded.
- 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.

Please consider good operating practices for the optimal performance of the Reverse Osmosis membrane elements to assure damage free operation:

- <u>Loading of Pressure Vessels Preparation & Element Loading</u> (Form No. 45-D01602-en)
- System Operation, including plant <u>Start-Up Sequence</u> (Form No. 45-D01609-en) and <u>RO & NF Systems Shutdown</u> (Form No. 45-D01613-en)
- 3. Handling, Preservation, and Storage (Form No. 45-D03716-en)

Full information of plant design, system operation, and troubleshooting is given in the <u>FilmTec™ Reverse Osmosis</u> <u>Membranes Technical Manual</u> (Form No. 45-D01504-en).

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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