



# FilmTec™ XLE PRO-4040 & **XLE PRO-2540**

Tape-Wrapped Low Energy Large Commercial Elements for Commercial Applications

## **Key Features**

- High flux results in high yields
- Produce good water quality at very low applied pressure for drinking water and commercial applications

# **Key Applications**

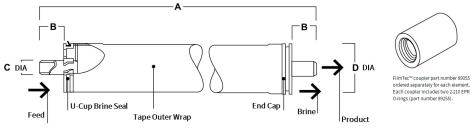
• Drinking & Commercial water applications for plant sizes ≤ 500L/hr (0.5M3/hr) - Hotels, Restaurants, Cafes, Car wash, schools, refiling stations, etc.

# **Typical Properties**

		Active Area	Permeate Flow Rate	Stabilized Salt
Product	Part number	ft <sup>2</sup> (m <sup>2</sup> )	gpd (m³/d)	Rejection (%)
XLE PRO-4040	12082995	87 (8.1)	2,750 (10.4) ±20%	99.0
XLE PRO-2540	12082909	28 (2.6)	1,000 (3.8) ±20%	99.0

- Permeate flow and salt rejection based on the following test conditions: 77°F (25°C), 15% recovery, applied pressure 125 psig (8.7 bar), pH 8, and based on a 2,000 ppm NaCl feed stream.
- Minimum salt rejection is 97.0%.
- For the purpose of improvement, specifications may be updated periodically.

#### **Element Dimensions**





	Dimensions – Inches (mm) 1 inch = 25.4 mm			
Product	Α	В	C	D
XLE PRO-4040	40.0	1.05	0.75	3.9
	(1,016)	(26.7)	(19)	(99)
XLE PRO-2540	40.0	1.19	0.75	2.4
	(1,016)	(30.2)	(19)	(61)

- 1. Refer to FilmTec™ Design Guidelines for multiple-element systems of midsize elements (Form No. 45-D01588-en).
- FilmTec™ XLE PRO-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 m³/hr)	
Maximum Pressure Drop	13 psig (0.9 bar)	
pH Range		
Continuous Operation <sup>a</sup>	2 - 11	
Short-Term Cleaning (30 min.)b	1 - 13	
Maximum Feed Silt Density Index	SDI 5	
(SDI)		
Free Chlorine Tolerance <sup>c</sup>	<0.1 ppm	

- a. Maximum temperature for continuous operation above pH 10 is 95°F (35°C).
- b. Refer to FilmTec™ Cleaning Guidelines (Form No. 45-D01696-en).
- c. 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 <u>Start-Up Sequence</u> (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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