



## Product Data Sheet

### DuPont™ XUS180808 Reverse Osmosis Element

Ultra-High Pressure, High-Rejection, Reverse Osmosis Element for Industrial Water Purification

#### Description

The DuPont™ XUS180808 Reverse Osmosis Element is an ultra-high pressure element offering a unique combination of features:

- Up to 120 bar (1,740 psi), ultra-high feed pressure capability due to special element and membrane design
- Increased overall efficiency of Zero-Liquid-Discharge (ZLD) in which very high solute concentrations help to reduce the size of downstream thermal treatment
- Excellent for recovery of salts in process streams
- Robust FilmTec™ reverse osmosis (RO) membrane sheet
- 34 mil feed spacer to lessen the impact of fouling on the pressure drop across a vessel and to enhance cleaning effectiveness
- Rigid glass-fiber composite outer wrap ensures element integrity under the most demanding operating conditions.

#### Product Type

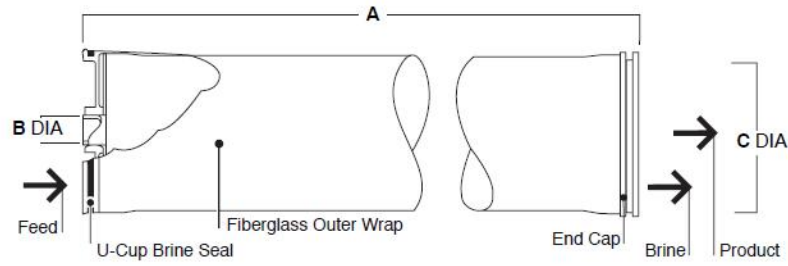
Spiral-wound element with polyamide thin-film composite membrane

#### Typical Properties

DuPont™ Specialty Membrane Element	Active Area		Feed Spacer Thickness	Permeate Flow Rate		Typical Stabilized Salt Rejection (%)	Minimum Salt Rejection (%)
	(ft <sup>2</sup> )	(m <sup>2</sup> )	(mil)	(GPD)	(m <sup>3</sup> /d)		
XUS180808	330	30.6	34	7,400	28	99.7	99.5

1. Permeate flow and salt (NaCl) rejection based on the following standard test conditions: 32,000 ppm NaCl, 800 psi (55 bar), 77°F (25°C), pH 8, 8% recovery.
2. Flow rates for individual elements may vary but will be no more than ± 15%.
3. Sales specifications may vary as design revisions take place.
4. Active area guaranteed ± 3%. Active area as stated by DuPont Water Solutions is not comparable to nominal membrane area often stated by some manufacturers.

## Element Dimensions



DuPont™ Specialty Membrane Element	A		B		C	
	(in.)	(mm)	(in.)	(mm)	(in.)	(mm)
XUS180808	40.0	1,016	1.125 ID	28.6 ID	7.9	201

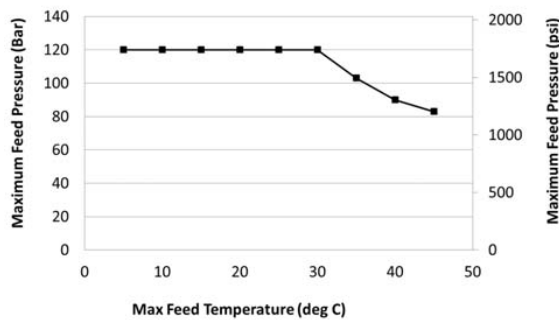
1. Refer to [FilmTec™ Design Guidelines for multiple-element systems of 8-inch elements](#) (Form No. 45-D01695-en).
2. Element to fit nominal 8-inch (203-mm) I.D. pressure vessel.

## Operating and Cleaning Limits\*

Maximum Operating Temperature <sup>a, d</sup>	113°F (45°C)
Maximum Operating Pressure at 30°C <sup>d</sup>	1,740 psig (120 bar)
Maximum Element Pressure Drop	15 psig (1.0 bar)
pH Range	
Continuous Operation <sup>a</sup>	2 – 11
Short-Term Cleaning (30 min.) <sup>b</sup>	1 – 13
Maximum Feed Silt Density Index (SDI)	SDI 5
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 guidelines in [Cleaning Guidelines](#) (Form No. 45-D01696-en) for more information about ph. and temperature for cleaning or contact DuPont representative for further information..
- 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 [Dechlorinating Feedwater](#) (Form No. 45-D01569-en) for more information.
- d. For relation between maximum allowed feed pressure and maximum feed temperature, see below.

Maximum feed pressure as a function of feed temperature



Temperature degC	Pressure	
	bar	psi
5	120	1,740
10	120	1,740
15	120	1,740
20	120	1,740
25	120	1,740
30	120	1,740
35	103	1,494
40	90	1,305
45	83	1,200

## Additional Important Information

Before use or storage, review these additional resources for important information:

- [Usage Guidelines for FilmTec™ 8" Elements](#) (Form No. 45-D01706-en)
- [Start-Up Sequence](#) (Form No. 45-D01609-en)
- [Storage and Shipping of New FilmTec™ Elements](#) (Form No. 45-D01633-en)

## General Information

- Maximum pressure drop across an entire pressure vessel (housing) is 60 psi (4.1 bar).
- Avoid static permeate-backpressure at all times.

## Product Stewardship

DuPont has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with DuPont products—from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

## Customer Notice

DuPont strongly encourages its customers to review both their manufacturing processes and their applications of DuPont products from the standpoint of human health and environmental quality to ensure that DuPont products are not used in ways for which they are not intended or tested. DuPont personnel are available to answer your questions and to provide reasonable technical support. DuPont product literature, including safety data sheets, should be consulted prior to use of DuPont products. Current safety data sheets are available from DuPont.

Please be aware of the following:

- 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.

## Regulatory Note

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

Have a question? Contact us at:

[www.dupont.com/water/contact-us](http://www.dupont.com/water/contact-us)

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