



## Product Data Sheet

### FilmTec™ Fortilife™ CR50 Element

Durable, Contaminant Resistant Brackish Water RO Element

#### Description

The FilmTec™ Fortilife™ product family offers solutions for industrial-users to improve water efficiency by incorporating membrane and element design innovations that enable systems to clean-less, recover-more, and waste-less.

The FilmTec™ Fortilife™ CR50 reverse osmosis element is contaminant resistant and offers long element lifetimes and reliable system performance when treating biological and organic fouling prone waters.



#### Advantages

- Durable membrane for consistent, long-lasting lifetime.
- Contaminant resistant element design provides reliable system performance
- Durable membrane with a cleaning tolerance over a wide pH range (pH 1-13) for consistent, long-lasting lifetime.

#### Product Type

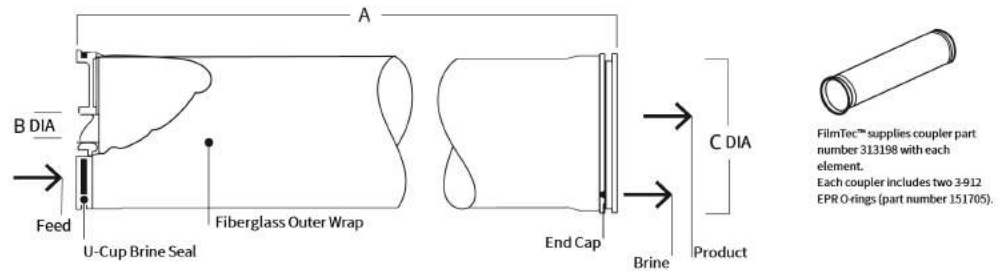
Spiral-wound element with polyamide thin-film composite membrane

#### Typical Properties

FilmTec™ Element	Active Area		Feed Spacer	Permeate Flow Rate		Typical Stabilized Salt	Minimum Salt
	(ft <sup>2</sup> )	(m <sup>2</sup> )	Thickness (mil)	(GPD)	(m <sup>3</sup> /d)	Rejection (%)	Rejection (%)
Fortilife™ CR50	400	37	34-LDP	11,000	42	99.6	99.4

1. Permeate flow and salt (NaCl) rejection is based on the following standard test conditions: 2,000 ppm NaCl, 225 psi (15.5 bar), 77°F (25°C), pH 8, and 15% recovery.
2. Flow rates for individual elements may vary but will be no more than ± 15%.
3. Stabilized salt rejection is generally achieved within 24-48 hours of continuous use; depending upon feedwater characteristics and operating conditions.
4. Sales specifications may vary as design revisions take place.
5. 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



	Dimensions – inches (mm)				1 inch = 25.4 mm	
	A		B		C	
FilmTec™ Element	(in.)	(mm)	(in.)	(mm)	(in.)	(mm)
Fortilife™ CR50	40.0	1,016	1.125 ID	29 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</sup>	113°F (45°C)
Maximum Operating Pressure	600 psig (41 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 [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 [Dechlorinating Feedwater](#) (Form No. 45-D01569-en) for more information.

## 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)

## Product Stewardship

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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.

## 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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