



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

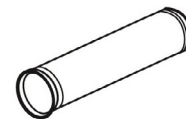
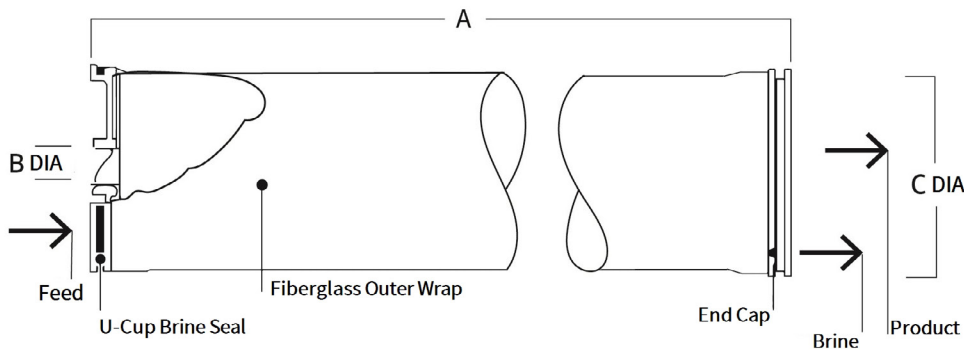
Spiral-wound element with polyamide thin-film composite membrane

Typical Properties

FilmTec™ Element	Active Area		Feed Spacer	Permeate Flow Rate		Typical Stabilized Salt	Minimum Salt
	(ft ²)	(m ²)	Thickness (mil)	(GDP)	(m ³ /d)	Rejection (%)	Rejection (%)
Fortilife™ CR50	400	37	34-LDP	11,500	43.9	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% below the value shown.
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.

Element Dimensions



FilmTec™ supplies coupler part number 313198 with each element. Each coupler includes two 3-912 EPR O-rings (part number 151705).

	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 ^a	113°F (45°C)
Maximum Operating Pressure	600 psig (41 bar)
Maximum Element Pressure Drop	15 psig (1.0 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

- 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

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.
- Permeate obtained from the first hour of operation should be discarded.



Have a question? Contact us at:
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