Product Data Sheet

FilmTec™ Fortilife™ CR200 Element

Highly Efficient, Durable, Organic and Biological Fouling Resistant, Brackish Water RO Element

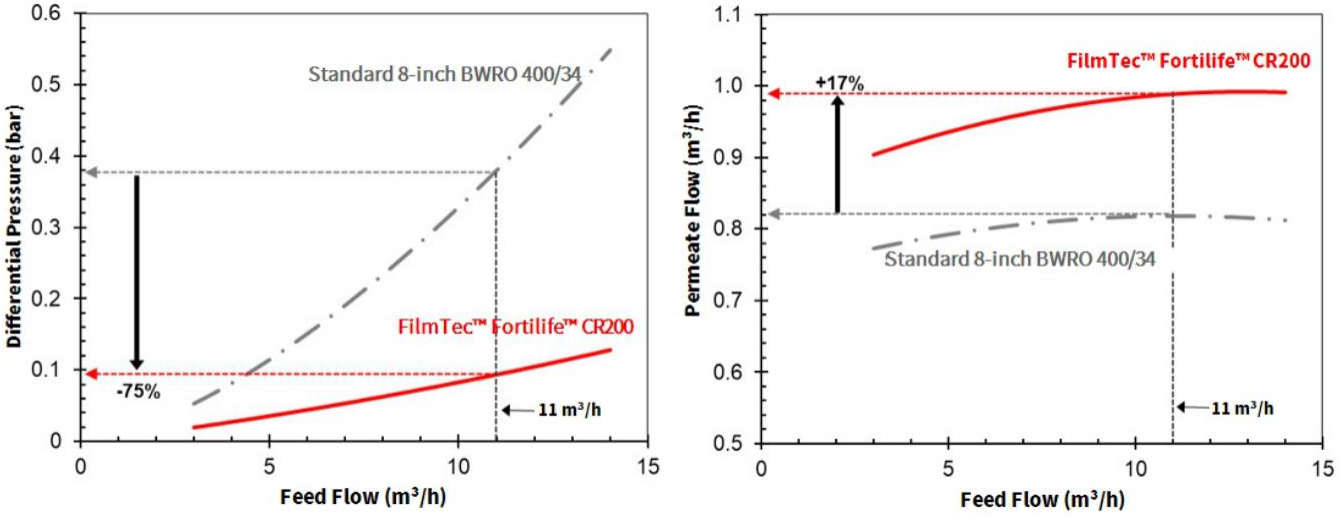
Description

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™ CR200 element is an expertly designed contaminant resistant element for recycling and treating the combined challenge of biological and organic fouling prone waters. FilmTec™ Fortilife™ CR200 delivers systems with superior operational efficiency and consistent solute rejection using a combination of patented membrane and module technologies. It couples a high productivity, durable, biological and organic fouling resistant membrane to an ultra-low pressure drop element design.

Advantages

- Most advanced contaminant resistant FilmTec™ RO membrane.
- Up to 20% more water productivity at the same energy consumption or up to 20% less energy consumption at the same water productivity.
- Up to 50% reduction in the number of cleanings in biological and organic fouling systems.
- Durable membrane with a cleaning tolerance over a wide pH range (pH 1-13) for consistent, long-lasting lifetime.



Representative element (a) differential pressure and (b) permeate flow as a function of feed flow rate for FilmTec™ Fortilife™ CR200 versus standard 8-inch BWRO†.

†Results shown are of WAVE© simulations for a single element at a fixed pressure of 8 bar and feed water of 2000 ppm NaCl, pH 8, 25 °C.

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Product Type

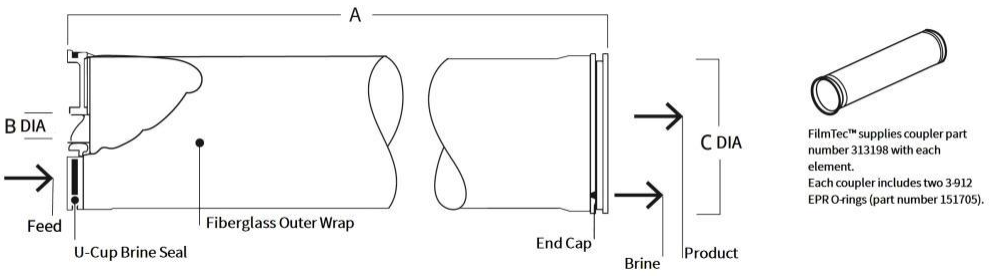
Spiral-wound element with polyamide thin-film composite membrane

Typical Properties

FilmTec™ Element	Active Area [1,2] (ft^2)(m^2)		Feed Spacer Thickness [1] (mil)	Permeate Flow Rate [3,4] (GPD)	(m^3/d)	Typical Stabilized Salt Rejection [3,5] (%)	Minimum Salt Rejection [3] (%)	Typical Element dP [6] (bar)
Fortilife™ CR200	400	37	34	12,500	47.3	99.7	99.4	0.1

1. Sales specifications may vary as design revisions take place.
2. Active area guaranteed ± 3%. Active area as stated by DuPont Water Solutions is not comparable to nominal membrane area often stated by some manufacturers.
3. 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.
4. Flow rates for individual elements may vary but will be no more than ± 15%.
5. Stabilized salt rejection is generally achieved within 24-48 hours of continuous use; depending upon feedwater characteristics and operating conditions.
6. Element dP (differential pressure) is a typical value for an element operated with a permeate flow of 12,500 GPD and 15% recovery.

Element Dimensions



Dimensions – inches (mm) — **1 inch = 25.4 mm**

FilmTec™ Element	A (in.)	A (mm)	B (in.)	B (mm)	C (in.)	C (mm)
Fortilife™ CR200	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.

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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.

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

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