

### **Product Data Sheet**

### FilmTec™ BW30HRLE-440i Element

# **Description**

Ideal for: reverse osmosis plant managers and operators dealing with controlled-pre-treatment waters and seeking advanced membrane treatment with good water purity and low energy consumption.

#### FilmTec™ BW30HRLE-440i:

- Offers good salt-rejection with 33% lower pressures
- Delivers excellent silica, boron, nitrate, IPA and ammonium rejection
- Provides increased active area with the most effective cleaning performance, robustness and durability due to its widest cleaning pH range (1-13) and chemical tolerance and the support of DuPont technical representatives
- Includes iLEC™ interlocking end caps, reducing system operating costs and the risk of o-ring leaks that can cause poor water quality

### **Product Type**

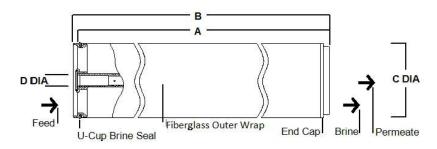
Spiral-wound element with polyamide thin-film composite membrane

## **Typical Properties**

Permeate Flow								
	Active Area		Feed Spacer	Rate		<b>Typical Stabilized Salt</b>	Minimum Salt	
FilmTec™ Element	(ft <sup>2</sup> )	(m²)	Thickness (mil)	(GPD)	(m³/d)	Rejection (%)	Rejection (%)	
BW30HRLE-440i	440	41	28	12,650	48	99.3	99.1	

- a. Permeate flow and salt (NaCl) rejection based on the following standard test conditions: 2,000 ppm NaCl, 150 psi (10.3 bar), 77°F (25°C), pH 8, 15% recovery.
- b. Flow rates for individual elements may vary but will be no more than ±15%.
- c. Stabilized salt rejection is generally achieved within 24-48 hours of continuous use; depending upon feedwater characteristics and operating conditions.
- d. Sales specifications may vary as design revisions take place.
- e. 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	n = 25.4 mm
		A		В		С	D	
FilmTec™ Element	(in.)	(mm)	(in.)	(mm)	(in.)	(mm)	(in.)	(mm)
BW30HRLE-440i	40.0	1,016	40.5	1,029	7.9	201	1.125 ID	29 ID

- Refer to FilmTec<sup>™</sup> 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.
- 3. Individual elements with iLEC™ endcaps measure 40.5 inches (1,029 mm) in length (B). The net length (A) of the elements when connected is 40.0 inches (1,016 mm).

# 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 a	2-11			
Short-Term Cleaning (30 min.) b	1 – 13			
Maximum Feed Silt Density Index (SDI)	SDI5			
Free Chlorine Tolerance c	< 0.1 ppm			

- a. Maximum temperature for continuous operation above pH 10 is 95°F (35°C).
- b. Refer to 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

# Product Stewardship

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)

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**

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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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