

Product Data Sheet



FilmTec[™] SW30HRLE-440i Element

Seawater Reverse Osmosis Element with iLEC™ Interlocking Endcaps

Description	 DuPont Water Solutions offers various premium seawater reverse osmosis (RO) elements designed to help reduce capital and operation cost of desalination systems. FilmTec[™] Elements combine excellent membrane quality with automated precision fabrication, taking system performance to exceptional levels. FilmTec[™] SW30HRLE-440i Elements offer sustainable lower life-cycle cost for medium- and high-salinity feedwater by combining high rejection and low energy performance with the highest active area and a thick feed spacer. Benefits of the FilmTec[™] SW30HRLE-440i Element include: Helps systems to be designed and operated to either lower operating cost through reduced energy consumption, or to decrease capital cost through higher productivity at lower operating fluxes. High NaCl and boron rejection to help meet World Health Organization (WHO) and other drinking water standards. Very high guaranteed active area of 440 ft² (41 m²) permits lower system cost by maximizing productivity and facilitating accurate and predictable system design and operating flux. The combination of very high active area with a thick feed spacer (28 mil) allows low cleaning frequency and high cleaning efficiency. Utilization of the distinct iLEC[™] Interlocking Endcaps that help reduce system operating costs and the risk of O-ring leaks that can cause poor water quality (see <u>LEC[™] Technology – Benefits of Use</u> (Form No. 45-D01135-en) for information on cost-saving benefits). Sustainable high performance over the operating lifetime of the element, because oxidative treatments are not used in membrane production. This is one reason FilmTec[™] Elements are more durable and may be cleaned more effectively over
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Product Type	Spiral-wound element with polyamide thin-film composite membrane

Typical Properties

		Permeate									
	Active	tive Area Feed Spacer		Flov	vrate	Stabiliz	Stabilized Boron		ed Salt		
	(ft²)	(m²)	Thickness (mil)	(gpd)	(m³/d)	Rejec	tion (%)	Rejection (%	ion (%)		
W30HRLE-440i	440	41	28	8,000	30.2		92	99	.80		
		2. 3. 4. 5.	The above values are not (5.5 MPa), 77°F (25°C), p Permeate flows for individ Minimum Salt Rejection is Stabilized salt rejection is feedwater characteristics Product specifications ma Active area guaranteed ± nominal membrane area	H 8, 8% reco dual elements s 99.65%. generally act and operatin ay vary slight t 5%. Active a	very. s may vary ± 1 hieved within ng conditions y as improver rea as stated	5%. 24 – 48 hou nents are im I by DuPont	urs of continuo nplemented. Water Solutio	ous use, depen	ding upor		
Element Dimensions				—— В - А -	/			Г			
		D C	eed U-Cup Brine Sea	Fiberglass	outer Wrap	End Cap					
		F		Fiberglass	o Outer Wrap	End Cap		ermeate	ı = 25.4 m		
		F	eed U-Cup Brine Sea	Fiberglass		End Cap		ermeate	1 = 25.4 m		
ilmTec™ Element		F Dimer	eed U-Cup Brine Sea	al		End Cap		ermeate 1 inch	1 = 25.4 n (mm)		
		F Dimer (i	eed U-Cup Brine Sea	al E	3	End Cap	C	ermeate			
		F Dimer (ii 40 1. 2.	n) (mm)	al (in) 40.5 yn Guidelines). hch (203-mm) LEC™ Interlo	3 (mm) 1.029 for multiple- 01.D. pressure bocking Endca	(in) 7.9 element sys e vessel. ps measure	C (mm) 201 stems of 8-inct	 ermeate (in) 1.125 ID nelements	(mm) 29 ID		
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FilmTec™ Element SW30HRLE-440i Operating and Cleaning Limits		F Dimer (ii 40 1. 2. 3. Maxin Maxin Maxin Maxin PH R Co Sh	Locup Brine Sea nsions – inches (mm) A n) (mm) 0.0 1,016 Refer to FilmTec [™] Desig (Form No. 45-D01695-en Element to fit nominal 8-ir Individual elements with il net length (A) of the elem mum Operating Tempera mum Operating Pressure mum Element Pressure D cange continuous Operation ^a	E (in) 40.5 jn Guidelines). hch (203-mm) LEC™ Interlo iture ^{a, b} b Orop n) ^c	3 (mm) 1.029 for multiple- 01.D. pressure bocking Endca	(in) 7.9 element sys e vessel. ps measure	C (mm) 201 stems of 8-inct 440.5 inches (* 1,016 mm). 113°F (* 1,200 ps 15 psig (* 2 – 11	 ermeate 1 inch D (in) 1.125 ID 1.125 ID 1.125 ID 1.029 mm) in ler 1,029 mm) in ler 45°C) sig (83 bar)	(mm 29 IC		

 Consult your DuPont representative for advice on applications above 95°F (35°C). Refer to <u>FIIM Lec</u> <u>Elements Operating Limits</u> (Form No. 45-D00691) for warranty-voiding conditions and additional information.

c. Refer to guidelines in Cleaning Guidelines (Form No. 45-D01696-en) for more information.

d. 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) Storage and Shipping of New FilmTec[™] Elements (Form No. 45-D01633-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.
Regulatory Note	This product may be subject to drinking water application restrictions in some countries; please check the application status before use and sale.



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