Product Data Sheet
FilmTec™ Reverse Osmosis Membranes

Pure & Cure Technology
Authorised Dupont FilmTec™ Distributor for India
www.purencure.com

DUPONT

FilmTec™ SW30HRLE-440

Seawater High Permeate Quality Reverse Osmosis Membrane Element with Higher Productivity

Key Features

- Optimized combination of water production and permeate quality.
- Permits low system capital cost by maximizing production capacity.
- Excellent durability resulting in stable, long-term performance.
- Longer storage time and warranty coverage with improved sustainability footprint versus our wet RO membrane elements.

Key Applications

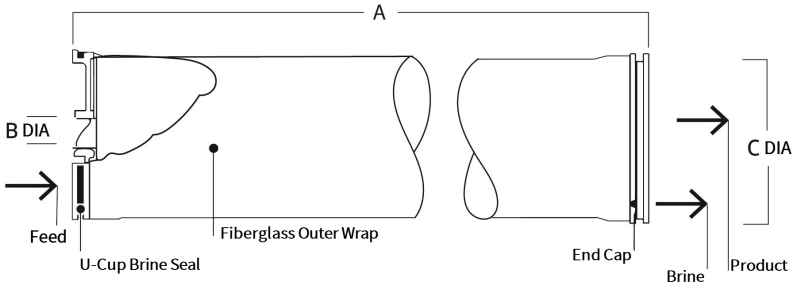
- Seawater desalination for municipal and industrial applications.
- Suitable for medium and high feed water salinity.
- Offers balance between permeate quality and energy consumption.
- Applicable for optimized Internally Staged Designs (ISD) in combination with other FilmTec™ seawater membranes.

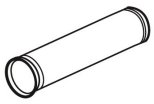
Typical Properties

FilmTec™ Element	Active Area (ft^2)	Active Area (m^2)	Feed Spacer Thickness (mil)	Permeate Flowrate (gpd)	Permeate Flowrate (m^3/d)	Stabilized Boron Rejection (%)	Stabilized Salt Rejection (%)	Minimum Salt Rejection (%)
SW30HRLE-440	440	41	28	8,000	30.2	92	99.80	99.65

1. The above benchmark values are based on the following test conditions: 32,000 ppm NaCl, 5 ppm boron, 800 psi (5.5 MPa), 77°F (25°C), pH 8, 8% recovery.
2. Permeate flows for individual elements may vary ± 15%.
3. 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).

FilmTec™ SW30HRLE-440 Dimensions – inches (mm)	
A	40.0 (1,016)
B	1.125 ID (29 ID)
C	7.9 (201)

ID - Inner Diameter
DIA - Diameter

1. For element weight information, refer to What is the weight of FilmTec™ elements as delivered?
2. For element packing and shipping information, refer to How are FilmTec™ elements packaged and shipped?

Suggested Operating Conditions [1]

Membrane Type	Polyamide Thin-Film Composite
Maximum Operating Temperature [2, 3]	113°F (45°C)
Maximum Operating Pressure [3]	1,200 psig (83 bar)
Maximum Element Pressure Drop	
Per element	15 psig (1.0 bar)
Per pressure vessel (minimum 4 elements)	50 psig (3.5 bar)
pH Range	
Continuous Operation [2]	2 – 11
Short-term Cleaning (30 min) [4]	1 – 13
Maximum Feed Silt Density Index (SDI)	SDI 5
Free Chlorine Tolerance [5]	< 0.1 ppm

1. For recommended feed and permeate flow rates, flux, and recovery for various feed sources, refer to FilmTec™ Design Guidelines for multiple-element systems of 8-inch elements (Form No. 45-D01695-en).
2. Maximum temperature for continuous operation above pH 10 is 95°F (35°C).
3. Consult your DuPont representative for advice on applications above 95°F (35°C). Relevant information regarding operation at high temperature and pressure: FilmTec™ Seawater Elements Operating Limits (Form No. 45-D00691-en) and Shimming Elements (Form No. 45-D01057-en).
4. Refer to FilmTec™ Cleaning Guidelines (Form No. 45-D01696-en).
5. Oxidation damage is not covered under warranty, DuPont recommends removing residual free chlorine by pretreatment prior to membrane exposure. Please refer to Dechlorinating Feedwater (Form No. 45-D01569-en) for more information.

General Information

- Keep elements moist at all times after initial wetting.
- For successful operation of Reverse Osmosis (RO) and Nanofiltration (NF) membrane systems, the operation must follow the guidelines provided in the FilmTec™ Reverse Osmosis / Nanofiltration Elements Operation Excellence and Limiting Conditions Tech Fact (Form No. 45-D04388-en).
- To prevent biological growth during prolonged system shutdowns, it is recommended that membrane elements be immersed in a preservative solution.
- The customer is fully responsible for the effects of incompatible chemicals and lubricants on elements.
- Avoid static permeate-side backpressure at all times.
- Permeate obtained from the first hour of operation should be discarded.
- 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.

Important Information

Please consider good operating practices for the optimal performance of the Reverse Osmosis membrane elements to assure damage free operation:

1. Loading of Pressure Vessels - Preparation & Element Loading (Form No. 45-D01602-en)
2. System Operation, including plant Start-Up Sequence (Form No. 45-D01609-en) and RO & NF Systems Shutdown (Form No. 45-D01613-en)
3. Handling, Preservation, and Storage (Form No. 45-D03716-en)

Full information of plant design, system operation and troubleshooting is given in the FilmTec™ Reverse Osmosis Membranes Technical Manual (Form No. 45-D01504-en).

Regulatory Note

This product may be subject to drinking water application restrictions in some countries; please check the application status before use and sale.

PNC®
Pure & Cure Technology
Authorised Dupont FilmTec™ Distributor for India
www.purencure.com

DUPONT™

All information set forth herein is for informational purposes only. This information is general information and may differ from that based on actual conditions. Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where DuPont is represented. The claims made may not have been approved for use in all countries. Please note that physical properties may vary depending on certain conditions and while operating conditions stated in this document are intended to lengthen product lifespan and/or improve product performance, it will ultimately depend on actual circumstances and is in no event a guarantee of achieving any specific results. DuPont assumes no obligation or liability for the information in this document. References to "DuPont" or the "Company" mean the DuPont legal entity selling the products to Customer unless otherwise expressly noted. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED. No freedom from infringement of any patent or trademark owned by DuPont or others is to be inferred.

Have a question? Contact us at:
www.dupont.com/water/contact-us

© 2022 DuPont. DuPont™, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, ℠ or ® are owned by affiliates of DuPont de Nemours Inc., unless otherwise noted. The Edison Seal is a trademark of Edison Best New Product Awards.

Form No . 45-D00969-en, Rev. 4
November 2022