DUPONT™

Product Data Sheet

FilmTec™ Membranes

FilmTec™ 4.6” Tapwater RO Elements

Description

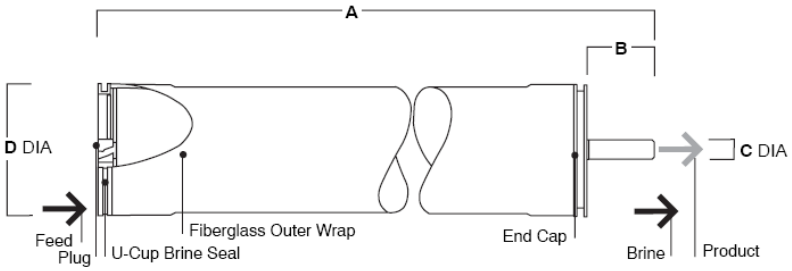
FilmTec™ 4.6-inch diameter RO elements offer high quality water for sanitary applications, using the high performance TW30HP membrane, which offers excellent permeate flow and salt rejection. These elements are made with the same high quality materials of construction as our larger FilmTec™ Elements used in municipal and industrial systems. For added convenience during shipping, storage and loading, these elements are available as either wet or dry products.

Typical Properties

	Product Water Flow Rate			Applied Pressure	Stabilized Salt
FilmTec™ Element	**(gpd)**	**(m^3/d)**	**(l/h)**	**psig (bar)**	**Rejection Cl- (%)**
TW30HP-4611	1,200	4.54	189	225 (15.5)	99.0
TW30HP-4619	1,450	5.49	229	225 (15.5)	99.0
TW30HP-4641	5,200	19.68	820	225 (15.5)	99.0

1. Permeate flow and salt rejection based on the following test conditions: 2,000 ppm NaCl, pressure specified above, 77°F (25°C), pH 8 and the following recovery rates; TW30HP-4611 - 5%, TW30HP-4619 - 8%, TW30HP-4641 - 15%.
2. Minimum salt rejection for individual element is 98.0%.
3. Flow rates for individual elements may vary +/-20%.
4. For the purpose of improvement, specifications may be updated periodically.

Element Dimensions



	Maximum Feed	Dimensions – Inches (mm)			
FilmTec™ Element	**Flow Rate, gpm (m^3h)**	**A**	**B**	**C**	**D**
TW30HP-4611	18 (4.1)	11.32 (287.53)	--	0.75 (19)	4.61 (117)
TW30HP-4619	18 (4.1)	19.20 (487.68)	–	0.75 (19)	4.61 (117)
TW30HP-4641	18 (4.1)	41.31 (1,049)	2.19 (56)	0.75 (19)	4.61 (117)

1. Refer to WAVE for multiple-element systems using the TW30HP-4641.1 inch = 25.4 mm
2. Elements fit nominal 4.6-inch I.D. pressure vessels.

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Operating and Cleaning Limits

Membrane Type	Polyamide Thin-Film Composite
Maximum Operating Temperature	113°F (45°C)
Maximum Operating Pressure	600 psi (4.1 MPa)
Maximum Pressure Drop	15 psi (1.0 bar)
pH Range	
Continuous Operation[a]	2 - 11
Short-Term Cleaning[b]	1 - 13
Maximum Feed Silt Density Index	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, DW&PS recommends removing residual free chlorine by pretreatment prior to membrane exposure. Please refer to FilmTec™ Design Guidelines for multiple-element systems of 8-inch elements (Form No. 45-D01695-en) for more information.

Important Operating Information

1. Keep elements moist at all times after initial wetting.
2. 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).
3. To prevent biological growth during storage, shipping or system shutdowns it is recommended that FilmTec™ Elements be immersed in a protective solution. The standard storage solution contains 1.0 percent (by weight) sodium metabisulfite (food grade).
4. The customer if fully responsible for the effects of incompatible chemicals on elements.

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.

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Have a question? Contact us at:

www.dupont.com/water/contact-us

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