



Product Data Sheet

FilmTec™ Membranes

Home Drinking Water Reverse Osmosis Elements

Description

FilmTec™ Reverse Osmosis (RO) Membranes for home drinking water treatment units are the most reliable and consistent elements in the industry. Advanced membrane technology and automated fabrication allow DuPont to precisely produce each and every element to tight, pre-defined specifications. DuPont's unmatched consistent RO element quality helps original equipment manufacturers (OEMs) develop, and maintain, brand recognition along with a reputation for building systems that reliably provide low impurity drinking water. FilmTec™ Elements are shipped dry for convenient handling and long shelf-life. These elements are NSF/ANSI Standard 58 listed. Equipment suppliers can use DuPont's Standard 58 listing and participation in the NSF Data Transfer Protocol to reduce costs for elective reduction claims for their systems.

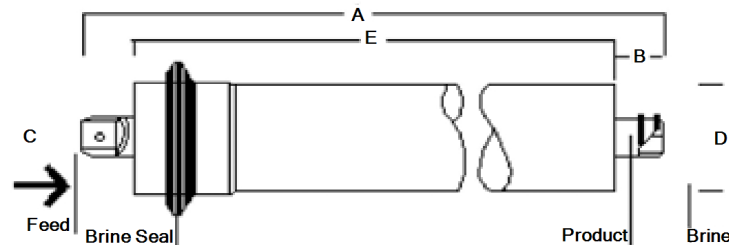
Typical Properties

Product	Part Number	Applied Pressure psig (bar)	Permeate Flow Rate gpd (l/h)	Stabilized Salt Rejection (%)
TW30-1812-24	93430	50 (3.4)	24 (3.8)	98
TW30-1812-36	80719	50 (3.4)	36 (5.7)	98
TW30-1812-50	80722	50 (3.4)	50 (7.9)	98
TW30-1812-75	114731	50 (3.4)	75 (12)	98

1. Permeate flow and salt rejection based on the following test conditions: 250 ppm softened tap water, 77°F (25°C), 15% recovery and the specified applied pressure.
2. Minimum salt rejection is 96.0%.
3. Permeate flows for individual elements may vary +/-20%.

For ease of installation, element o-rings have been pre-lubricated with glycerin

Element Dimensions



COMPONENT

This component is Tested and Certified by NSF International against NSF/ANSI Standard 58 for material requirements only.

Dimensions – inches (mm)					1 inch = 25.4 mm
	A	B	C	D	E
TW30-1812	11.74 (298)	0.87 (22)	0.68 (17)	1.75 (44.5)	10.1 (254)

1. TW30-1812 Home Drinking Water elements fit nominal 2-inch I.D. pressure vessels

Operating Limits

Membrane Type	Polyamide Thin-Film Composite
Maximum Operating Temperature	113° F (45°C)
Maximum Operating Pressure	150 psig (10 bar)
Maximum Feed Flow Rate	2.0 gpm (7.6 lpm)
pH Range, Continuous Operation ^a	2 – 11
Maximum Feed Silt Density Index (SDI)	5
Free Chlorine Tolerance ^b	< 0.1 ppm

- Maximum temperature for continuous operation above pH 10 is 95°F (35°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 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.

Figure 1: Impact of Pressure on Permeate Flow
(constant temperature, recovery)

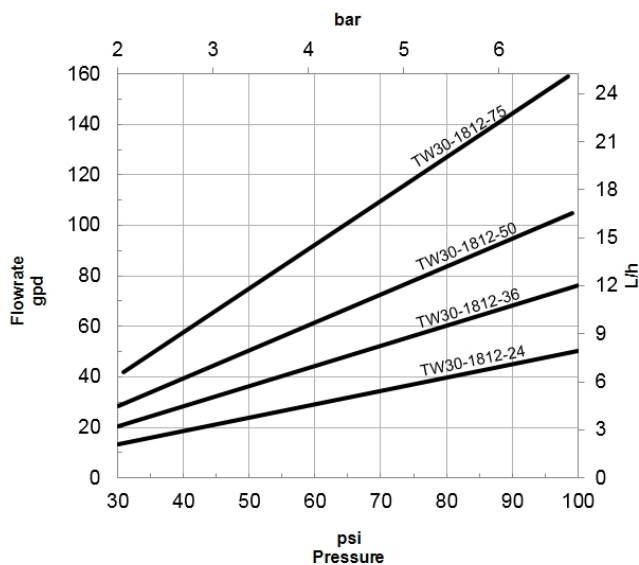
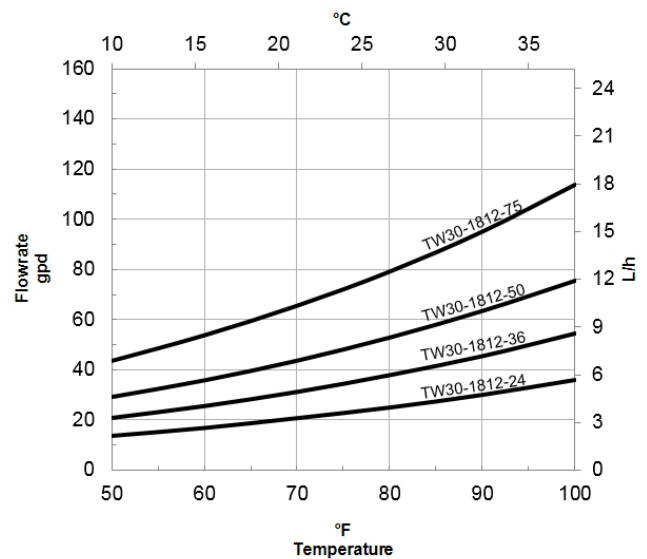


Figure 2: Impact of Temperature on Permeate Flow
(constant pressure, recovery)



Important Information

- It is recommended that systems using these elements rinse the elements for 24 hours, prior to first use, to meet the NSF/ANSI 58 Standard.
- The first full tank of permeate should be discarded. Do not use this initial permeate for drinking water or food preparation.
- Keep elements moist at all times after initial wetting.
- To prevent biological growth during prolonged system shutdowns, it is recommended that membrane elements be immersed in a preservative solution.
- The membrane shows some resistance to short-term attack by chlorine (hypochlorite). Continuous exposure, however, may damage the membrane and should be avoided.
- 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).
- If operating limits and guidelines given in this Product Information bulletin are not strictly followed, the limited warranty will be null and void. The OEM is fully responsible for the effects of incompatible chemicals and lubricants on elements. Use of any such chemicals or lubricants will void the limited warranty.

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.

Have a question? Contact us at:

www.dupont.com/water/contact-us

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.

© 2022 DuPont. DuPont™, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, SM or ® are owned by affiliates of DuPont de Nemours Inc., unless otherwise noted.

