



## DOW™ FILMTEC™ Membranes

### Home Drinking Water Reverse Osmosis Elements

#### Features

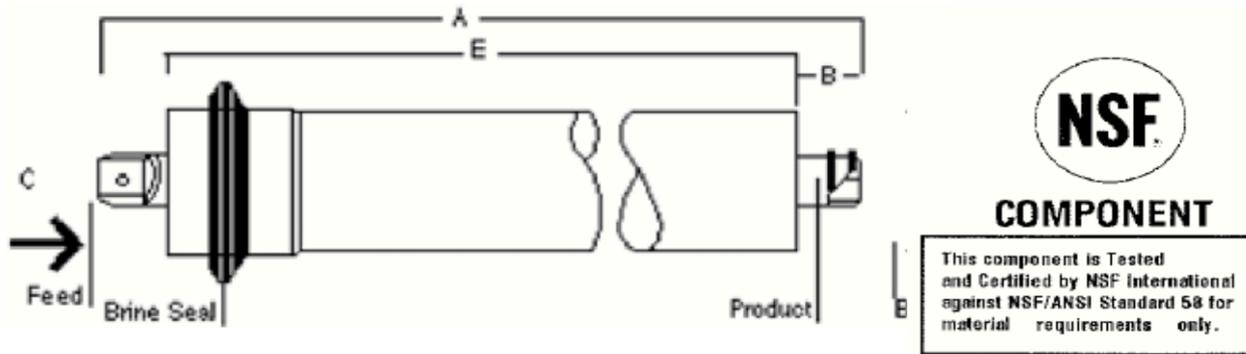
DOW™ FILMTEC™ reverse osmosis (RO) membranes for home drinking water treatment units are the most reliable and consistent elements in the industry. Advanced membrane technology and automated fabrication allow Dow to precisely produce each and every element to tight, pre-defined specifications. Dow's 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. DOW™ FILMTEC™ elements are shipped dry for convenient handling and long shelf-life. These elements are NSF/ANSI Standard 58 listed. Equipment suppliers can use Dow's Standard 58 listing and participation in the NSF Data Transfer Protocol to reduce costs for elective reduction claims for their systems.

#### Product Specifications

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

Figure 1



Dimensions – Inches (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 <sup>a</sup>	2 – 11
	Maximum Feed Silt Density Index (SDI)	5
	Free Chlorine Tolerance <sup>b</sup>	< 0.1 ppm

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

b. 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, Dow recommends removing residual free chlorine by pretreatment prior to membrane exposure. Please refer to technical bulletin 609-22010 for more information.

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### Influence of Temperature and Pressure on TW30-1812 Permeate Flow

Figure 1.

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

(constant temperature, recovery)

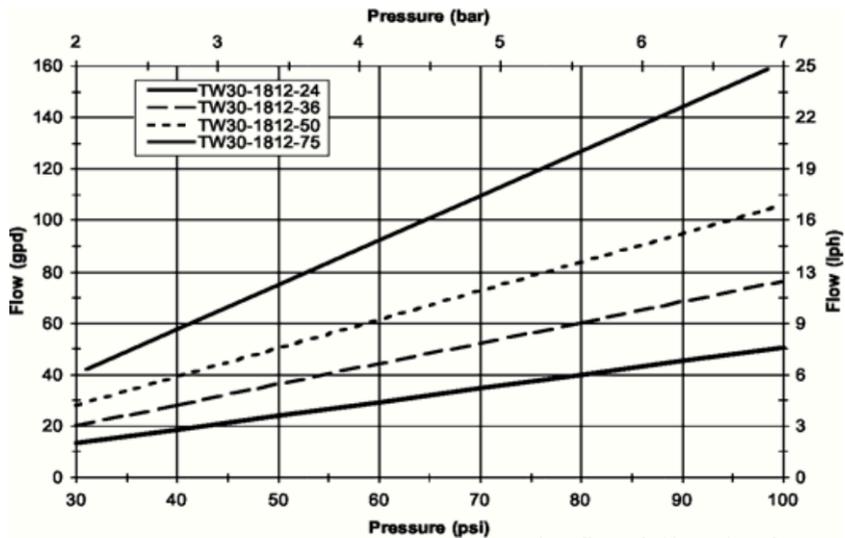
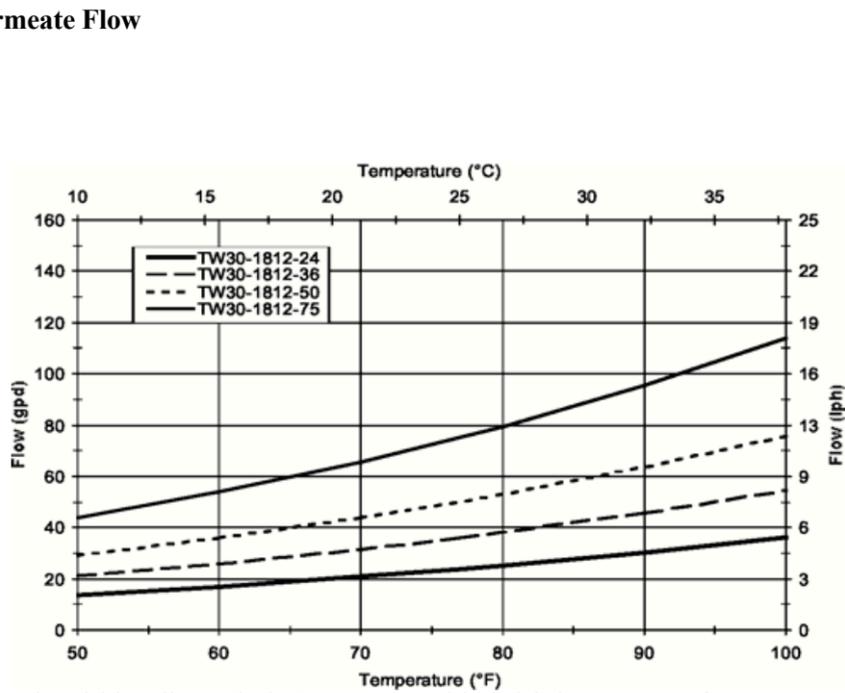


Figure 2.



#### Important Information

- 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.
- DOW™ FILMTEC™ Home Drinking Water Reverse Osmosis Elements may be covered under the DOW™ FILMTEC™ Reverse Osmosis and Nanofiltration Element Three-Year Prorated Limited Warranty, 609-35010-1006 extended to OEMs. Such Limited Warranty is non-transferable.
- 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.

#### DOW™ FILMTEC™ Membranes

For more information about DOW™ membranes, call one of our Dow Water & Process Solutions locations:

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 China: +86 21 3851 1000  
<http://www.dowwatersolutions.com>

FILMTEC™ Membranes are manufactured in Edina, MN

Notice: 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.

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