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DOW FILMTEC™ Membranes

Features

New DOW FILMTEC™ residential elements are the most reliable, consistent and highest quality in the industry. Our 100 GPD elements offer a superior balance of the highest available flow with premium rejection, ideal for low feed pressure residential applications.

DOW FILMTEC™ Residential Elements Feature:

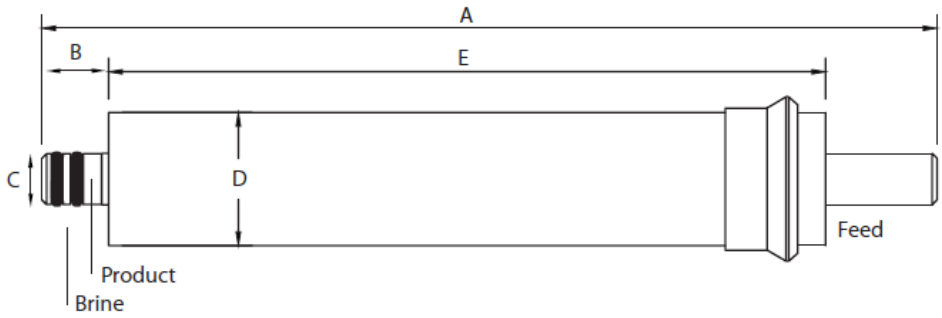
- New advanced membrane chemistry can achieve stabilized salt rejection of 98%.
- High active membrane area and twin leaf design for optimized performance
- NSF58 safety Certification and reduced certification costs / resources with NSF data transfer Certification
- Fully-automated manufacturing that ensures consistent and high quality elements
- Dry shipping for convenient handling and longer shelf-life
- Proven consistency and reliability for longer membrane life

Typical Product Performance

Product	Part number	Applied pressure psig (bar)	Permeate flow rate gpd (l/h)	Stabilized salt rejection(%)
TW30-1812-100HR	11013537	50 (3.4)	100 (15.8)	98

1. Warranty evaluation test conditions: 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%.
3. Permeate flows for warranty evaluation may vary +/-20%.

Figure 1



NSF

COMPONENT

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

Dimensions – inches (mm)	A	B	C	D	E
TW30-1812-100HR	**11.74 (298)**	**0.875 (22.2)**	**0.68 (17)**	**1.75 (44.5)**	**9.4 (239)**

1. TW30-1812 Home Drinking Water elements seal at a standard 2.0 inch – 2.05 inch I.D. within pressure vessels

Operating Limits

Membrane Type	Polyamide thin-film composite
Maximum operating temperature	113ºF (45ºC)
Maximum operating pressure	150 psig (10 bar)
Maximum feed flow rate	2.0 gpm (7.6 lpm)
pH range, Continuous operation	2-11
Maximum feed silt density index (SDI)	5
Free chlorine tolerance	< 0.1 ppm

a. 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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Dow FILMTEC™ Membranes

Residential Reverse Osmosis Elements

Influence of temperature and pressure on permeate flow

Figure 2:
Impact of pressure on permeate flow
(constant temperature, recovery)

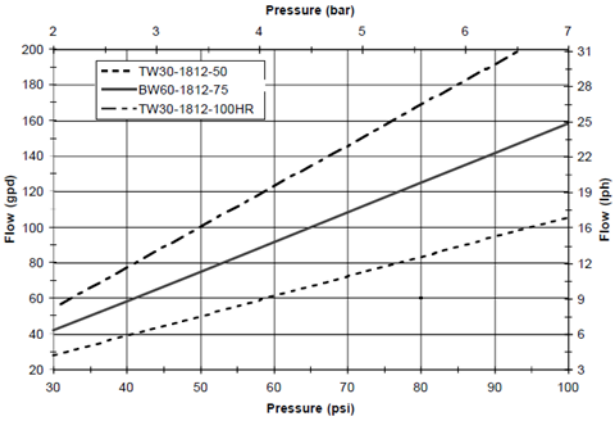
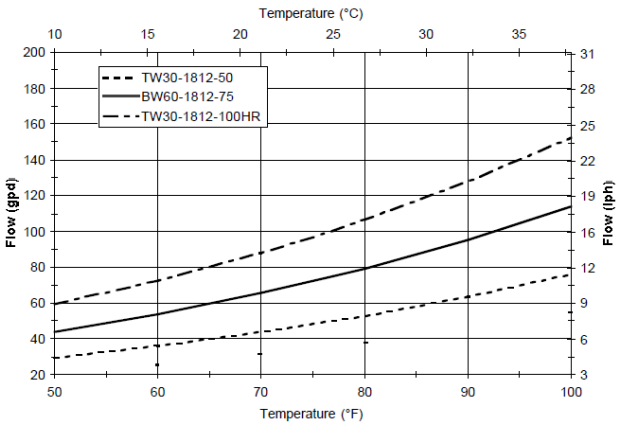


Figure 3:
Impact of temperature on permeate flow
(constant pressure, recover)



Important information

- It is recommended that systems using these elements rinse the elements for 24 hours, prior to first use, to meet NSF/ANSI 58 Standard.
- The first full tank of permeate must 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. Rinse out the preservative before use.
- 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. Contact a Dow representative for more information.

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.

These membranes may be subject to drinking water application restrictions in some countries: please check the application status before use and sale. These elements have not been through the French approval process for use in potable water.

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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