Product Data Sheet

DOW FILMTEC™ BW60-1812-75 Element

Description

DOW FILMTEC™ Residential Reverse Osmosis (RO) Elements are some of the most reliable and consistent elements manufactured in the industry. Advanced membrane technology and precision manufacturing result in elements produced to tight, pre-defined specifications with consistent RO element performance. Dow's focus on manufacturing excellence is an essential measure to ensure OEM and brand owner customers develop and maintain their reputation for building world class, reliable water purifiers that produce water consumers can trust.

DOW FILMTEC™ BW60-1812-75 Residential RO Elements offer rapid rejection and flow performance stabilization as well as long effective performance lifetimes to ensure systems produce reliable, high quality water while minimizing system maintenance costs. This is achieved by coupling advanced membrane chemistry with efficient element designs that are less prone to flux loss due to scaling. A summary of the element features includes:

- High rejection at start-up and after stabilization
- Up to 20% higher flow rates than competitive elements operated at the same pressure
- Stable, reliable performance even when treating high hardness waters
- NSF International safety certification and ability for NSF data transfer to reduce certification costs
- Dry shipping for convenient handling and long shelf-life

Product Type

Spiral-wound element with polyamide thin-film composite membrane

Product Specifications

DOW FILMTEC™ Element	Applied Pressure (psig)	Applied Pressure (bar)	Permeate Flow Rate (GPD)	Permeate Flow Rate (L/h)	Typical Stabilized Salt Rejection (%)
BW60-1812-75	50	3.4	75	12	99

1. Permeate flow and salt rejection based on the following test conditions: 500 ppm $NaHCO_3$, 77°F (25°C), pH 8.0, 15% recovery and the specified applied pressure.
2. Minimum salt rejection is 96.0%.
3. Permeate flows for individual elements may vary ±20%.

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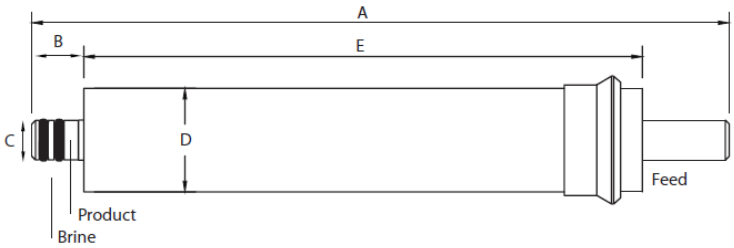
Element Dimensions

COMPONENT

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



	A		B		C		D		E	
DOW FILMTEC™ Element	**(in.)**	**(mm.)**	**(in.)**	**(mm)**	**(in.)**	**(mm)**	**(in.)**	**(mm)**	**(in.)**	**(mm)**
BW60-1812-75	11.74	298	0.875	22.2	0.68	17	1.75	44.5	9.4	239

1. BW60-1812 Residential Elements seal at a standard 2.0 inch – 2.05 inch I.D. within pressure vessels

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

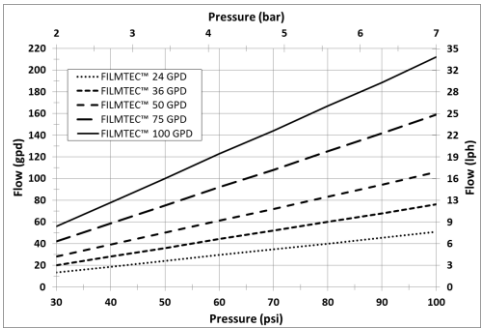
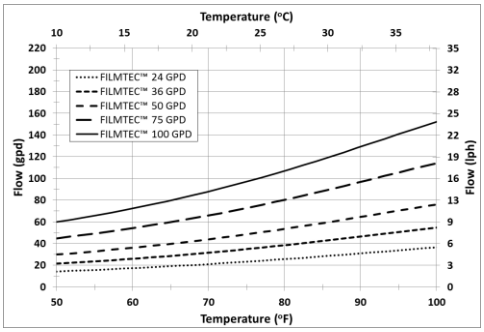


Figure 2
Impact of Temperature on Target Permeate Flow (constant temperature, recovery)



Operating and Cleaning Limits

Maximum Operating Temperature [a]	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	2 – 11
Maximum Feed Silt Density Index (SDI)	SDI 5
Free Chlorine Tolerance [b]	< 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 Water & Process Solutions 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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Additional Important Information

- Permeate water obtained from the first hour of use should be discarded to the drain.
- Keep elements moist at all times after initial wetting.
- To ease installation, it is recommended to use a lubricant safe for indirect water contact on all seals. Potential options include water, glycerin based lubricants, and Dow Corning MOLYKOTE™ 111 Lubricant.
- Rotate the element about a quarter turn to ease installation and removal of the element. Ensure good interface between the o-rings and brine seal with their connection surfaces.
- 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 use of this product does not necessarily guarantee the removal of cysts and pathogens from water. Effective cyst and pathogen reduction is dependent on the operation and maintenance of the system.
- DOW FILMTEC™ Residential RO Elements may be covered under the DOW FILMTEC™ Residential Element Limited Warranty, 609-50318. 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.

Storage

Refer to technical bulletin 609-02103 for further information.

Regulatory Note

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

Product Stewardship

Dow 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 Dow products—from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support.

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