



Product Data Sheet

DOW FILMTEC™ 500 GPD Membranes

Features

DOW FILMTEC™ reverse osmosis (RO) membranes for home drinking water treatment units are some of the most reliable and consistent elements in the industry. Utilizing advanced membrane technology, the new DOW FILMTEC™ 500 GPD Element offers exceptional balance of flow and high rejection.

DOW FILMTEC™ 500 GPD Residential Element Features:

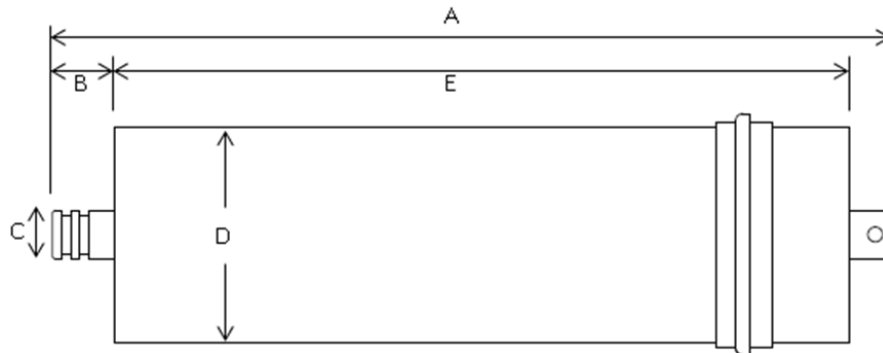
- New membrane chemistry that helps produce industry leading flow at 98% stabilized salt rejection.
- Long lifetimes on high hardness water applications
- Fast start-up to reach stabilized rejection
- High active membrane area and multi-leaf design for optimized performance
- Dry shipping for convenient handling and long shelf-life
- Proven consistency and reliability for long membrane life

Typical Product Performance

Product	Part number	Applied pressure psig (bar)	Permeate flow rate gpd (l/h)	Stabilized salt rejection (%)
TW30-3012-500	11102789	70 (4.8)	500 (79)	98

1. Warranty evaluation test conditions: permeate flow and salt rejection based on the following test conditions: 250 ppm NaCl, 77°F (25°C), 40% recovery and the specified applied pressure.
2. Minimum salt rejection is 96%.
3. Permeate flows for warranty evaluation may vary +25/-15%.

Figure 1



Dimensions – inches (mm)	A	B	C	D	E
TW30-3012-500	11.74 (298)	0.875 (22.2)	0.68 (17)	2.95 (74.9)	10.25 (260.4)

1. 3012 Home Drinking Water elements seal at a standard 3.0 inch – 3.05 inch I.D. within 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	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.

Important information

- The first five gallons 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 help prevent biological growth during prolonged system shutdowns, it is recommended that membrane elements be immersed in a storage solution. Rinse out the storage solution 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.

Storage

Refer to [609-02103](#) for further information.

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. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

Distributed By:

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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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