



# FilmTec™ BW30 PRO-4040 & BW30 PRO-2540

Fiberglassed Large Commercial Elements for Challenging Water Conditions

## Key Features

- Delivers consistent water quality and higher rejection and flow than previous generation FilmTec™ BW30 product
- Based on historical FilmTec™ BW30 industry-standard RO membrane with decades of proven performance
- Outstanding durability resulting in stable, long-term performance and sustainable water solutions
- Enhanced fouling protection
- Dry elements achieve quick stabilization

## Key Applications

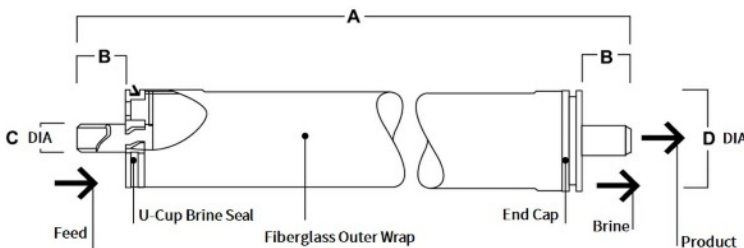
- Light industrial & Drinking water applications requiring stringent permeate quality
- Harsh feed water conditions

## Typical Properties

| Product       | Part Number | Permeate Flow Rate gpd (m <sup>3</sup> /d) | Stabilized Salt Rejection % |
|---------------|-------------|--|-----------------------------|
| BW30 PRO-4040 | 12080524    | 2,600 (9.8)                                | 99.7                        |
| BW30 PRO-2540 | 12081023    | 1,000 (3.8)                                | 99.7                        |

1. Permeate flow and salt rejection based on the following test conditions: 2,000 ppm NaCl and 225 psig (15.5 bar), pH 8, 77°F (25°C) and 15% recovery.
2. Minimum salt rejection is 99.5%.
3. Permeate flows for individual elements may vary +/-15%.

## Element Dimensions



FilmTec™ coupler part number 89055 is ordered separately for each element. Each coupler includes two 2.210 EPR O-rings (part number 89255).

| Product       | Dimensions – inches (mm) |                |              |             |
|---------------|--------------------------|----------------|--------------|-------------|
|               | 1 inch = 25.4 mm         |                |              |             |
|               | A                        | B              | C            | D           |
| BW30 PRO-4040 | 40.0<br>(1,016)          | 1.05<br>(26.7) | 0.75<br>(19) | 3.9<br>(99) |
| BW30 PRO-2540 | 40.0<br>(1,016)          | 1.19<br>(30.2) | 0.75<br>(19) | 2.4<br>(61) |

1. Refer to [FilmTec™ Design Guidelines for multiple-element systems of midsize elements](#) (Form No. 45-D01588-en).
2. BW30 PRO-2540 Elements fit nominal 2.5-inch I.D. pressure vessel. BW30 PRO-4040 Elements fit nominal 4-inch I.D. pressure vessel.

## Operating and Cleaning Limits

|  |                                |
|--|--------------------------------|
| Membrane Type                              | Polyamide Thin-Film Composite  |
| Maximum Operating Temperature <sup>a</sup> | 113°F (45°C)                   |
| Maximum Operating Pressure                 | 600 psi (41 bar)               |
| Maximum Feed Flow Rate                     |                                |
| 4040 Elements                              | 16 gpm (3.6 m <sup>3</sup> /h) |
| 2540 Elements                              | 6 gpm (1.4 m <sup>3</sup> /h)  |
| Maximum Pressure Drop                      | 15 psig (1.0 bar)              |
| pH Range                                   |                                |
| Continuous Operation <sup>a</sup>          | 2 - 11                         |
| Short-Term Cleaning (30 min.) <sup>b</sup> | 1 - 13                         |
| Maximum Feed Silt Density Index (SDI)      | SDI 5                          |
| Free Chlorine Tolerance <sup>c</sup>       | < 0.1 ppm                      |

- Maximum temperature for continuous operation above pH 10 is 95°F (35°C).
- Refer to [FilmTec™ Cleaning Guidelines](#) (Form No. 45-D01696-en).
- 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, it is recommended that residual free chlorine be removed by pretreatment prior to membrane exposure. Please refer to [Dechlorinating Feedwater](#) (Form No. 45-D01569-en) for more information.

## General Information

- Keep elements moist at all times after initial wetting
- If operating limits and guidelines given in this bulletin are not strictly followed, the limited warranty will be null and void. Refer to FilmTec™ Reverse Osmosis and Nanofiltration Three-Year Prorated Limited Warranty (Form No. 45-D00903-en)
- To prevent biological growth during prolonged system shutdowns, it is recommended that membrane elements be immersed in a preservative solution
- The customer is fully responsible for the effects of incompatible chemicals and lubricants on elements
- Maximum pressure drop across an entire pressure vessel (housing) is 50 psi (3.4 bar)
- Avoid static permeate-side backpressure at all times
- Permeate obtained from the first hour of operation should be discarded.
- Avoid any abrupt pressure or cross-flow variations on the spiral elements during start-up, shutdown, cleaning or other sequences to prevent possible membrane damage. During start-up, a gradual change from a standstill to operating state is recommended as follows:
  - Feed pressure should be increased gradually over a 30-60 second time frame.
  - Cross-flow velocity at set operating point should be achieved gradually over 15-20 seconds.
- 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.
- Permeate obtained from the first hour of operation should be discarded.

## Important Information

- Proper start-up of reverse osmosis water treatment systems is essential to prepare the membranes for operating service and to prevent membrane damage due to overfeeding or hydraulic shock. Following the proper start-up sequence also helps ensure that system operating parameters conform to design specifications so that system water quality and productivity goals can be achieved.
- Before initiating system start-up procedures, membrane pretreatment, loading of the membrane elements, instrument calibration and other system checks should be completed.
- Please refer to the application information literature entitled [Start-Up Sequence](#) (Form No. 45-D01609-en) for more information.
- Please refer to the [FilmTec™ Reverse Osmosis Membranes Technical Manual](#) (Form No. 45-D01504-en).
- Please refer to [Storage and Shipping of New FilmTec™ Elements](#) (Form No. 45-D01633-en) for further information.

## Regulatory Note

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



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