

PRODUCT INFORMATION LEWABRANE® RO B400 LE



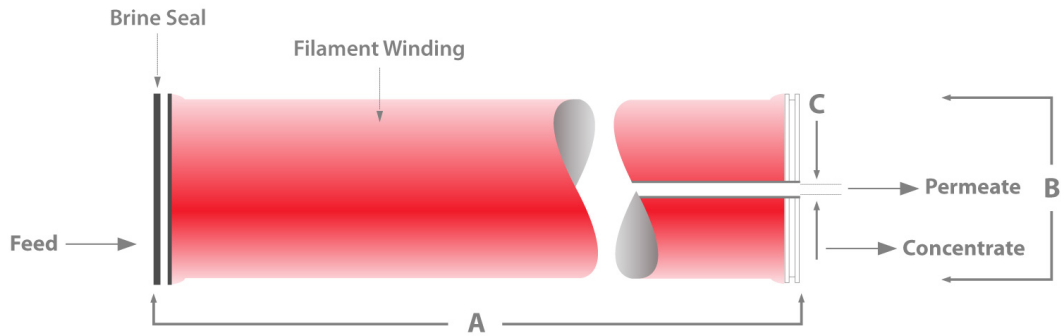
The Lewabrane® RO B400 LE elements are spiral wound, composite polyamide membrane elements of higher permeability than standard pressure RO membranes. These RO membranes are characterized by a lower operating feed pressure than HR, HF and FR type membranes, and result in a lower energy consumption, hence the terminology of LE (Low Energy). These RO membranes are designed for industrial and potable water treatment applications, such as the treatment of brackish and low salinity waters.

General Information

| | Metric units | US units |
|--------------------------|------------------------|---------------------|
| Feed spacer thickness | 0.86 mm | 34 mil |
| Membrane area | 37.2 m ² | 400 ft ² |
| Salt rejection, av. | 99.5 % | 99.5 % |
| Salt rejection, min. | 99.0 % | 99.0 % |
| Permeate flow rate, av. | 34.8 m ³ /d | 9200 gpd |
| Permeate flow rate, min. | 27.8 m ³ /d | 7300 gpd |

Element is tested under the following conditions: applied pressure 10.3 bar (150 psi), NaCl concentration 2000 mg/l, operating temperature 25 °C (77 °F), pH 7 and recovery rate 15 %.

Element Dimensions



| | A (Length) | B (Diameter) | C (ID) |
|--------------|------------|--------------|------------|
| Metric Units | 1016 mm | 201 mm | 29 mm |
| US Units | 40 inch | 7.9 inch | 1.125 inch |

This document contains important information and must be read in its entirety.

Application Data

| | Metric units | US units |
|---------------------------------|--------------|----------|
| Operating pressure, max. | 41 bar | 600 psi |
| Operating temperature, max. | 45 °C | 113 °F |
| Feed water SDI, max. | 5 | 5 |
| pH range during operating | 2 - 11 | 2 - 11 |
| pH range during cleaning | 1 - 12 | 1 - 12 |
| Pressure drop per element, max. | 1.0 bar | 15 psi |
| Pressure drop per vessel, max. | 3.5 bar | 50 psi |
| Chlorine concentration, max. | 0.1 ppm | 0.1 ppm |

Additional Information

- Treat RO Elements with care; do not drop the element.
- Each RO Element is wet tested, preserved in a 1% weight sodium bisulfite solution, and vacuum packed in oxygen barrier bags.
- During storage, avoid freezing and direct sunlight. The temperature should be below 35 °C (95 °F).

After Installation

- Keep the RO Elements wet, and use a compatible preservative for storage duration longer than 7 days.
- During the initial start up, discharge the first permeate to drain for 30 min.
- Permeate back pressure should not exceed feed pressure at any time.
- The RO Elements shall be maintained in a clean condition, unfouled by particulate matter or precipitates or biological growth.
- Consider cleaning, if the pressure drop increases by 20% or water permeability decreases by 10%.
- Use only chemicals which are compatible with the membrane.
- For additional information consult the Lewabrane® technical information available at www.lpt.lanxess.com.

This information and our technical advice – whether verbal, in writing or by way of trials – are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with the current version of our General Conditions of Sale and Delivery.

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