

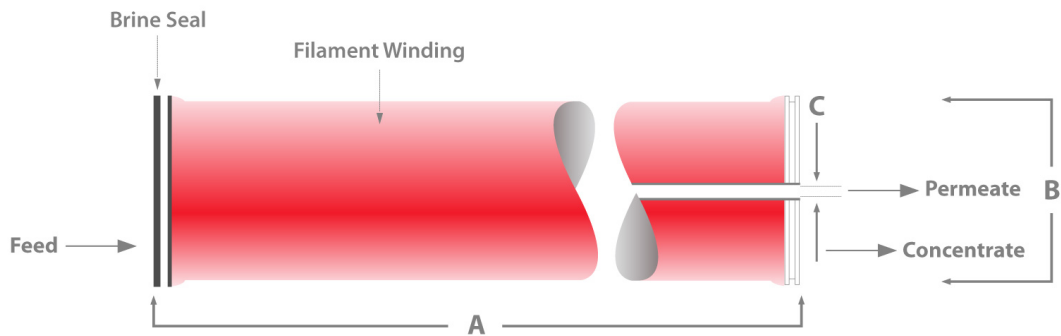
The Lewabrane® RO B440 LE elements are spiral wound, composite polyamide membrane elements of higher permeability than standard pressure RO membranes. These RO membranes are characterized by a lower operating feed pressure than HR, HF and FR type membranes, and result in a lower energy consumption, hence 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	0.7 mm	28 mil
Membrane area	40.9 m <sup>2</sup>	440 ft <sup>2</sup>
Salt rejection, av.	99.5 %	99.5 %
Salt rejection, min.	99.0 %	99.0 %
Permeate flow rate, av.	38.3 m <sup>3</sup> /d	10100 gpd
Permeate flow rate, min.	30.6 m <sup>3</sup> /d	8100 gpd

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

### Element Dimension



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

## 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

As with any product, use of the products mentioned in this publication in a given application must be tested (including field testing, etc.) by the user in advance to determine suitability.

## 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](http://www.lpt.lanxess.com).

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling the LANXESS Sybron Chemicals Inc. products mentioned in this publication. For materials mentioned which are not LANXESS Sybron Chemicals Inc. products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be followed. Before working with any of these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms. Consult your LANXESS Sybron Chemicals Inc. representative or contact the Product Safety and Regulatory Affairs Department at LANXESS Corporation at 1-800-526-9377.

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