

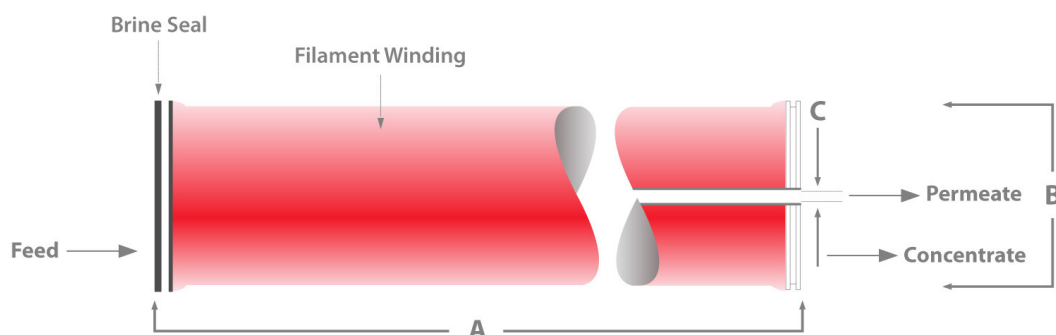
The Lewabrane® RO B440 LE elements are spiral wound, composite polyamide membrane elements of higher permeability than standard pressure RO membranes. These RO membranes are characterized by a lower operating feed pressure than HR, HF and FR type membranes, and result in a lower energy consumption, hence 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 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

## 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
Feed flow, max.	18.0 m³/h	80 gpm
Concentrate flow, min.	2.7 m³/h	12 gpm
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.
- 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).

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