

The Lewabrane® RO B400 HR elements are spiral wound, composite polyamide (PA) membrane elements designed for industrial water treatment applications, such as the treatment of brackish and low salinity waters for primary demineralization in boiler water and process water applications. The RO B400 HR element incorporates a high cross-linked membrane which is characterized by:

- High rejection of critical ions such as boron, nitrate and silica
- High rejection of organic compounds
- Constant high rejection at changing feed parameters

### General Information

	Metric units	US units
Permeate flow, ave.	37.9 m <sup>3</sup> /d	10000 gpd
Salt rejection, ave.	99.7 %	99.7 %
Membrane area	37.2 m <sup>2</sup>	400 ft <sup>2</sup>
Feed spacer thickness	0.8 mm	31 mil

Minimum element performance: 30.3 m<sup>3</sup>/d (8000 gpd) permeate flow and 99.3% salt rejection.  
Element test conditions: applied pressure 15.5 bar (225 psi), NaCl concentration 2000 mg/l, temperature 25 °C (77 °F), pH 7 and recovery rate 15%.  
An NaCl feed concentration of 1500 mg/l will increase the permeate flow productivity to approx. 39.5 m<sup>3</sup>/d (10,450 gpd).

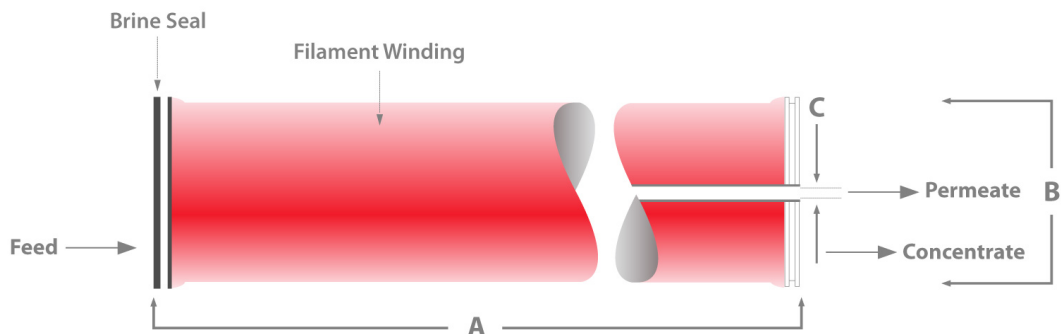
### Rejection Data

	NO <sub>3</sub> <sup>-</sup>	SiO <sub>2</sub>	IPA	Boron
Typical rejection	98.5 %	99.7 %	95.0 %	80.0 %

Typical rejection performance for specific ions based on the above test condition, plus 50 mg/l SiO<sub>2</sub>, or 5 mg/l B, or 100 mg/l NO<sub>3</sub><sup>-</sup>. Isopropyl alcohol (IPA) testing at 100 mg/l IPA without NaCl.

These items are provided as general information only. They are approximate values and are not considered part of the product specifications.

### Element Dimension



	A (Length)	B (Diameter)	C (ID)
Dimension inches (mm)	40 (1016)	7.9 (201)	1.125 (29)

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

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