

# PRODUCT INFORMATION LEWABRANE® RO S400 HR



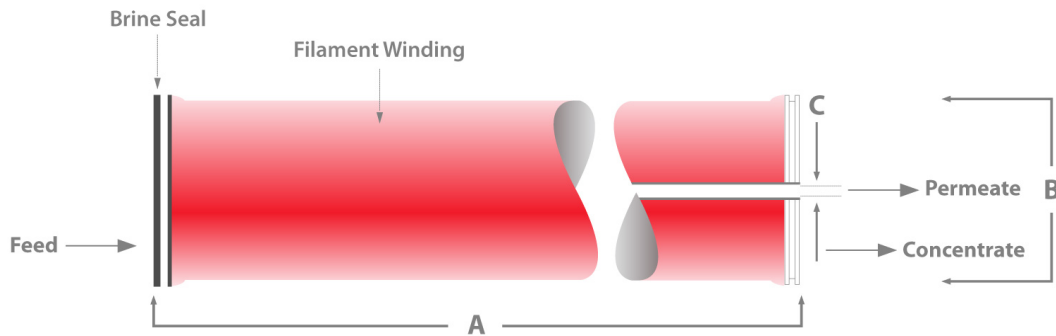
Lewabrane® RO S400 HR elements are spiral-wound, composite polyamide membrane elements designed for the desalination of seawater. The S400 HR membrane is characterized by an extremely durable, highly cross-linked polymeric separating layer suitable for high salinity, high pressure applications. The Lewabrane® RO S400 HR membrane element is recommended for single pass applications where stable salt rejection performance during the expected operating lifetime is an important consideration.

## General Information

	Metric units	US units
Feed spacer thickness	0.86 mm	34 mil
Membrane area	37.2 m <sup>2</sup>	400 ft <sup>2</sup>
Salt rejection, av.	99.8 %	99.8 %
Salt rejection, min	99.5 %	99.5 %
Boron rejection, typical	93.0 %	93.0 %
Permeate flow rate, av.	24.6 m <sup>3</sup> /d	6500 gpd
Permeate flow rate, min.	19.7 m <sup>3</sup> /d	5200 gpd

Element is tested under the following conditions: applied pressure 55.2 bar (800 psi), NaCl concentration 32,000 mg/l (or when tested on a mixed solution of 32,000 mg/l NaCl and 5 mg/l Boron), operating temperature 25 °C (77 °F), pH 8 and recovery rate 8 %.

## 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.

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## Application Data

	Metric units	US units
Operating pressure, max.	83 bar	1200 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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