

PRODUCT INFORMATION LEWABRANE® RO S085 HR 4040



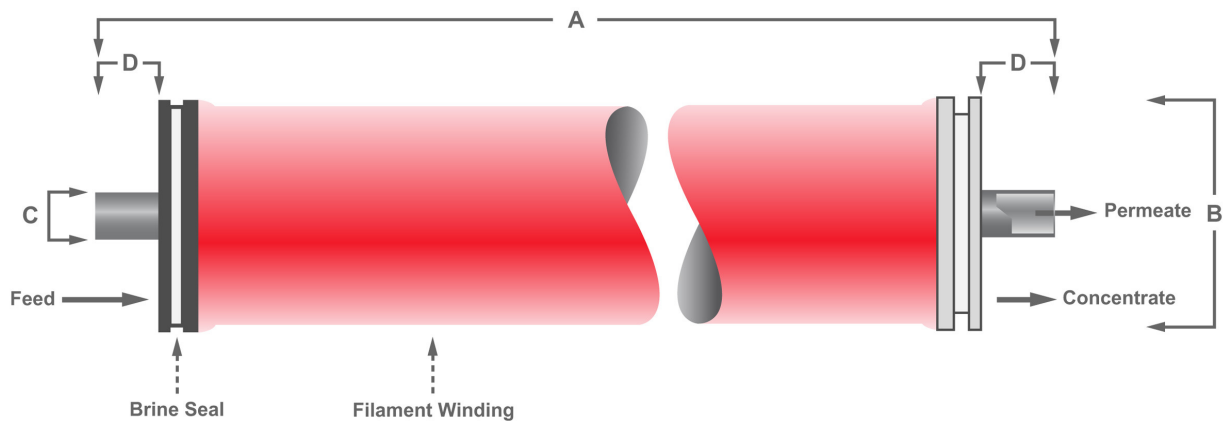
Lewabrane® RO S085 HR 4040 elements are spiral-wound, composite polyamide membrane elements designed for the desalination of seawater. The S085 HR membrane is characterized by an extremely durable, highly cross-linked polymeric separating layer suitable for high salinity, high pressure applications. The Lewabrane® RO S085 HR 4040 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	0.8 mm	31 mil
Membrane area	7.9 m ²	85 ft ²
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.	5.2 m ³ /d	1380 gpd
Permeate flow rate, min.	4.2 m ³ /d	1100 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 Dimension



	A (Length)	B (Diameter)	C (OD)	D (Length)
Metric Units	1016 mm	100 mm	19 mm	26 mm
US Units	40 inch	4.0 inch	0.75 inch	1.05 inch

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

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Previous Edition: Not available

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
Feed flow, max.	4.0 m ³ /h	18 gpm
Concentrate flow, min.	0.6 m ³ /h	3 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.

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