

NE8040-LXM

Lithium Extraction NF Membrane

CSM[®]

- Effective for lithium extraction
- Enhanced Durability under Acid Conditions



Industrial



Water Reuse

SPECIFICATIONS

General Features

Permeate Flow Rate	12,000 GPD (45.4 m ³ /day)
MgSO ₄ Rejection	99.3% (Minimum 98.3%)
Effective Membrane Area	400 ft ² (37.2 m ²)
Membrane Type	Thin-Film Composite
Membrane Material	Polyamide (PA)
Element Configuration	Spiral-Wound, FRP Wrapping

Test Conditions: 2,000 mg/L MgSO₄ solution at 75 psig (0.52 MPa) applied pressure; 15% recovery; 77°F (25°C); pH 6.5–7.0; Permeate flow rate for each element may vary +25 / -25%.

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-Connector	Brine Seal
NE8040-LXM	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.125 inch (28.6 mm)	15kg	SWA01049	SWA01043



1. Each membrane element supplied with one interconnector (coupler) and four O-rings.
2. All NE8040 elements fit nominal 8.0 inch (203.2 mm) I.D. pressure vessels.

Toray Advanced Materials Korea Inc.

For more information on our products, company and regional contacts, please visit our website at www.csmfilter.com.

Product Specification Sheet / Model NE8040-LXM

V.2.1 (26)

NE8040-LXM_(Tentative)



Lithium Extraction NF Membrane

APPLICATION DATA

Operating Limits

Max. Pressure Drop / Element	15 psi (0.10 MPa)
Max. Pressure Drop / 240" Vessel	60 psi (0.41 MPa)
Max. Operating Pressure	1200 psi (8.27 MPa)
Max. Feed Flow Rate	75 gpm (17.0 m ³ /hr)
Min. Concentrate Flow Rate	16 gpm (3.6 m ³ /hr)
Max. Operating Temperature	113°F (45°C)
Operating pH Range	1.0 – 10.0
CIP pH Range	0.5 – 12.0
Max. Turbidity	1.0 NTU
Max. SDI (15 min)	5.0
Max. Chlorine Concentration	< 0.1 mg/L

Please contact your technical expert for pressure limits at elevated temperatures.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. Please refer to the user manual for further details.
- During initial operation, it is necessary to operate continuously for a minimum of 1 hour at the designed permeate flow rate, and the permeate should be discarded.
- Keep elements moist at all times after initial wetting.
- Salt rejection would be stabilized within 48 hours of continuous operation depending on feedwater and operating conditions, but may take over a week for dry elements.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.
- The element shell is FRP(Fiber Reinforced Plastic). Be aware of glass fiber strands and use safety equipment.

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