

# Data Sheet



## Seawater Reverse Osmosis (RO) Membranes LG SW 400 ES

### Overview

LG Chem's NanoH<sub>2</sub>O™ seawater RO membranes, incorporated with innovative Thin Film Nanocomposite (TFN) technology, reduce the cost of desalination while delivering superior water quality. Our seawater RO membranes provide industry leading salt rejection and produce 20% more flow than membranes manufactured with conventional technologies. We continue to leverage the technological advantages of our seawater RO membranes to expand our market share, accruing more than 3,000 Million Liter per Day (MLD) projects for both new and replacement market since the establishment.

LG SW ES (Energy Saving) membranes offer significant energy savings while producing good water quality; suitable for low to medium salinity seawater applications.

### Product Specifications at 600 psi

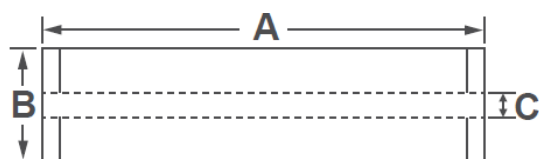
Active Membrane Area, ft <sup>2</sup> (m <sup>2</sup> )	Permeate Flow Rate, GPD (m <sup>3</sup> /d)	Stabilized Salt Rejection, %	Minimum Salt Rejection, %	Boron Rejection, %	Feed Spacer, mil
400 (37)	6,800 (25.7)	99.6	99.3	81	34

Test Conditions : 32,000 ppm NaCl, 5 ppm boron at 25°C (77°F), 600 psi (41 bar), pH 8, Recovery 8%.  
Permeate flows for individual elements may vary +/-20%.

### Referential Product Specifications at 800 psi

Active Membrane Area, ft <sup>2</sup> (m <sup>2</sup> )	Permeate Flow Rate, GPD (m <sup>3</sup> /d)	Stabilized Salt Rejection, %	Minimum Salt Rejection, %	Boron Rejection, %	Feed Spacer, mil
400 (37)	13,700 (51.9)	99.8	99.6	89	34

Test Conditions : 32,000 ppm NaCl, 5 ppm boron at 25°C (77°F), 800 psi (55 bar), pH 8, Recovery 8%.  
Permeate flows for individual elements may vary +/-15%.



A, mm (in.)	B, mm (in.)	C, mm (in.)	Weight, kg (lbs.)
1,016 (40)	200 (7.9)	28.6 (1.125)	16 (35)

All dimensional information is indicative and for reference purpose only. Please contact LG Chem for detailed technical specification.

### Operating Specifications

For more information and operating guidelines, visit [www.lgwatersolutions.com](http://www.lgwatersolutions.com)

<b>Max. Applied pressure</b>	1,200 psi (82.7 bar)
<b>Max. Chlorine concentration</b>	< 0.1 ppm
<b>Max. Operating temperature</b>	45°C (113°F)
<b>pH Range, Continuous (Cleaning)</b>	2-11 (2-13)
<b>Max. Feedwater turbidity</b>	1.0 NTU
<b>Max. Feedwater SDI (15 mins)</b>	5.0
<b>Max. Feed flow</b>	75 gpm (17 m <sup>3</sup> /h)
<b>Min. Ratio of concentrate to permeate flow for any element</b>	5 : 1
<b>Max. Pressure drop (ΔP) for each element</b>	15 psi (1.0 bar)

The Membrane Elements performance is expressly conditioned on Buyer's storing, installing, operating, and maintaining Product in accordance with industry-accepted good practices and Seller's written instructions provided in the Seller's Technical Manual, which consists of LG Chem, Ltd [Technical Service Bulletins \("TSB"\)](#) and [Technical Applications Bulletins \("TAB"\)](#) and may be viewed and downloaded at [www.lgwatersolutions.com](http://www.lgwatersolutions.com).

The information and data contained herein are deemed to be accurate and reliable and are offered in good faith, but without guarantee of performance. LG Chem assumes no liability for results obtained or damages incurred through the application of the information contained herein. Customer is responsible for determining whether the products and information presented herein are appropriate for the customer's use and for ensuring that customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Specifications subject to change without notice. NanoH<sub>2</sub>O is the Trademark of The LG Water Solutions or an affiliated company of LG Chem. All rights reserved. © LG Chem, Ltd.



**Headquarter:** 54/18 Bui Quang La, Ward 12, Go Vap District, HCMC, Viet Nam  
**Office:** 12 DHT10B, Dong Hung Thuan Ward, District 12, HCMC, Viet Nam  
**Phone:** (028) 6258 5368 - (028) 6291 9568  
**Email:** [info@atswatertechnology.com](mailto:info@atswatertechnology.com)  
**Website:** [www.atswatertechnology.com](http://www.atswatertechnology.com)

(01.23)  
**Nano:H<sub>2</sub>O™**