

LG Water Solutions

Proven Performance by Winning Large Project



Seawater RO Membranes

Global Reference

📍 Seawater desalination

Algeria
Mostaganem
25,000 m³/day

Malta
Pembroke
36,000 m³/day

Egypt
Matrouh Remela Phase 1
25,000 m³/day

Israel
Palmachim
180,000 m³/day

Curacao
Santa Barbara
28,400 m³/day



Spain
Lanzarote V | Pto del Rosario IV, Train 2
18,000 m³/day | 7,200 m³/day

Oman
Sohar (2018)
250,000 m³/day

Mexico
Ensenada (2017)
26,000 m³/day

Overview

LG Chem's thin-film nanocomposite (TFN) membranes offer lower water treatment costs by improving energy efficiency and productivity. We increase water production by up to 20% and provide industry leading salt rejection of 99.85%. We continue to leverage these technical advantages to win large desalination projects such as the Sohar sea water desalination project in Oman which will produce 250 million liters of water per day upon completion.



-  **LG SW SR, GR and R High rejection membranes**
Well suited for high TDS and high quality permeate requirements
-  **LG SW ES Energy-Saving membranes**
Well suited for low TDS and low temperature seawater applications

Product Specifications

Configuration : 8-inch spiral wound : Thin-film nanocomposite (TFN) polyamide

Product	Flow rate m ³ /d (GPD)	Minimum NaCl rejection (%)	NaCl rejection (%)	Boron rejection (%)	Active area m ² (ft ²)	Feed spacer (mil*)
LG SW 400 SR	22.7 (6,000)	99.7	99.85	93	37 (400)	28 or 34
LG SW 440 SR	25 (6,600)	99.7	99.85	93	41 (400)	28
LG SW 400 GR	28.4 (7,500)	99.7	99.85	93	37 (400)	28 or 34
LG SW 440 GR	31.2 (8,250)	99.7	99.85	93	41 (400)	28
LG SW 400 R	34 (9,000)	99.7	99.85	93	37 (400)	28 or 34
LG SW 440 R	37 (9,900)	99.7	99.85	93	41 (400)	28
LG SW 400 ES	52 (13,700)	99.6	99.8	89	37 (400)	28 or 34
LG SW 440 ES	57 (15,070)	99.6	99.8	89	41 (400)	28

*400 square-foot elements available with either 28 or 34 mil feed spacer

Note : The above values are normalized to the following conditions : 32,000 ppm NaCl, 5 ppm boron, 5.5 MPa (800 psi), 25°C (77°F), pH 8, 8% recovery.

Permeate flows for individual elements may vary +/- 15%.



Length A	Element O.D. B	Perm tube I.D. C	Weight kg (lbs.)
1,016 mm (40 in.)	200 mm (7.9 in.)	28.6 mm (1.125 in.)	16.4 (36)

Operating Specifications

For more information and operating guidelines, visit www.LGwatersolutions.com

Max. Applied pressure:	82.7 bar (1,200 psig)
Max. Chlorine concentration:	< 0.1 ppm
Max. Operating temperature:	45°C (113°F)
pH Range, Continuous (Cleaning):	2-11 (2-13)
Max. Feedwater turbidity:	1.0 NTU
Max. Feedwater SDI (15 mins):	5.0
Max. Pressure drop (ΔP) for each element:	1 bar (15 psi)

