# **() LG Chem** Data Sheet

## **LG Water Solutions**



Seawater Reverse Osmosis (RO) Membranes



LG SW 400 R

#### **Overview**

LG Chem's NanoH<sub>2</sub>O<sup>™</sup> 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 R (High Rejection) membranes offer a combination of high rejection and low energy requirements to reduce the total cost of desalination; suitable for medium to high salinity seawater applications.

#### **Product Specifications**

Active Membrane	Permeate flow rate, GPD (m <sup>3</sup> /d)	Stabilized Salt	Minimum Salt	Boron	Feed Spacer,
Area, ft <sup>2</sup> (m <sup>2</sup> )		Rejection, %	Rejection, %	Rejection, %	mil
400 (37)	9,000 (34.1)	99.85	99.7	93	28 or 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,	B,	C,	Weight,
	mm (in.)	mm (in.)	mm (in.)	kg (lbs.)
<u>↓</u>	1,016	200	28.6	16
	(40)	(7.9)	(1.125)	(35)

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

### **Operating Specifications**

Max. Applied pressure	1,200 psi (82.7 bar)	
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. Feed flow	75 gpm (17 m <sup>3</sup> /h)	
Min. Ratio of concentrate to permeate flow for any element	5 : 1	
Max. Pressure drop ( $\Delta P$ ) for each element	15 psi (1.0 bar)	

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ENNTECH info@lenntech.com Tel. +31-152-610-900 www.lenntech.com Fax. +31-152-616-289

Rev. L (10.11)