

LG Water Solutions





Seawater Reverse Osmosis (RO) Membranes

LG SW 4040 R

Overview

LG Chem's NanoH₂O[™] seawater RO membranes, incorporated with innovative Thin Film Nanocomposite (TFN) technology, deliver industry-leading salt rejection and 20% more flow than the membranes manufactured from conventional technologies. Our seawater RO membranes significantly reduce the cost of desalination while delivering superior water quality. In LG Chem, we do our utmost to fulfill customer needs and provide additional values from excellent commercial and technical supports. With state-of-the-art technology and customer focus, LG Chem has been awarded more than 3,000 Million Liter per Day (MLD) seawater projects since its 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	Stabilized Salt	Minimum Salt	Feed Spacer,
Area, ft² (m²)	Rate, GPD (m ³ /d)	Rejection, %	Rejection, %	Mil
80 (7.4)	1,950 (7.4)	99.7	99.5	28

Test Conditions: 32,000 ppm NaCl at 25°C (77°F), 800 psi (55 bar), pH 8, Recovery 8%. Permeate flows for individual elements may vary +/-20%.

	A,	B,	C,	D,	Weight
	mm (in.)	mm (in.)	mm (in.)	mm (in.)	kg (lbs.)
$ \begin{array}{c c} \downarrow & \uparrow \\ \hline \\ \downarrow & \downarrow \\ \hline \\ D \\ \hline \\ \hline$	1,016	100	19	29	4.2
	(40)	(3.9)	(0.75)	(1.1)	(9.3)

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	15 gpm (3.4 m ³ /h)	
Min. Ratio of concentrate to permeate flow for any element	5 : 1	
Max. Pressure drop (ΔP) for each element	15 psi (1.0 bar)	

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