

Data Sheet



Seawater Reverse Osmosis (RO) Membranes LG SW 440 GR G2

Overview

The next generation LG SW G2 membranes have achieved record-breaking salt rejection, improving the product quality up to 45% compared with the conventional technology. With enhanced Thin Film Nanocomposite (TFN) technology, LG SW G2 membranes can significantly reduce the cost of desalination.

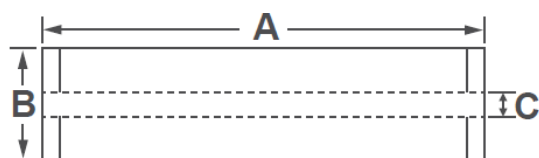
LG SW GR (Great Rejection) membranes offer a combination of high rejection and low energy requirements to reduce the total cost of desalination; suitable for high salinity seawater applications.

- LG SW G2 Benefits**
- ▶ **Improved permeate quality** without increasing operating pressure
 - ▶ **Reduced energy cost** without sacrificing the permeate quality
 - ▶ **Reduced capital and operation costs** for multi-pass SWRO systems

Product Specifications

| Active Membrane Area, ft ² (m ²) | Permeate Flow Rate, GPD (m ³ /d) | Stabilized Salt Rejection, % | Minimum Salt Rejection, % | Boron Rejection, % | Feed Spacer, mil |
|---|---|------------------------------|---------------------------|--------------------|------------------|
| 440 (41) | 8,250 (31.2) | 99.89 | 99.75 | 93 | 28 |

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

| | |
|---|-------------------------------|
| 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 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) |

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.

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