

# 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.

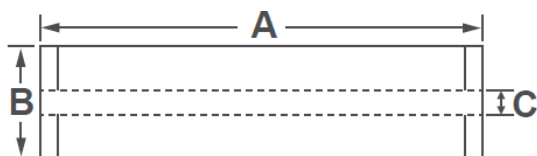
LG SW GR (Great Rejection) membranes offer a combination of high rejection and low energy requirements to reduce the total cost of desalination; suitable for high salinity seawater applications.

- 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 <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 |
|---|---|------------------------------|---------------------------|--------------------|------------------|
| 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](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)              |

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