

# Data Sheet



## Seawater Reverse Osmosis (RO) Membranes LG SW 4040 R

### Overview

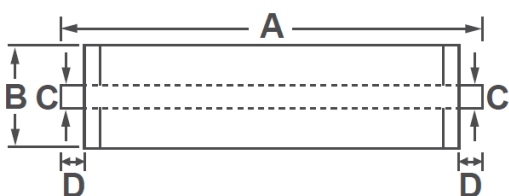
LG Chem's NanoH<sub>2</sub>O™ seawater RO membranes, incorporated with innovative Thin Film Nanocomposite (TFN) technology, deliver industry-leading salt rejection and 20% more flow than the membranes manufactured from conventional technologies. Our seawater RO membranes significantly reduce the cost 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 Area, ft <sup>2</sup> (m <sup>2</sup> ) | Permeate Flow Rate, GPD (m <sup>3</sup> /d) | Stabilized Salt Rejection, % | Minimum Salt Rejection, % | Feed Spacer, 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, mm (in.) | B, mm (in.) | C, mm (in.) | D, mm (in.) | Weight kg (lbs.) |
|-------------|-------------|-------------|-------------|------------------|
| 1,016 (40)  | 100 (3.9)   | 19 (0.75)   | 29 (1.1)    | 4.2 (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 <sup>3</sup> /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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