Chem Data Sheet

LG Water Solutions



Seawater Reverse Osmosis (RO) Membranes



LG SW 440 ES

Overview

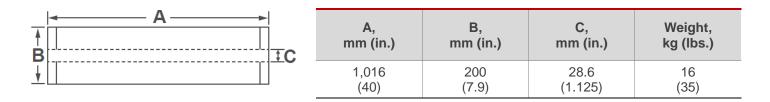
LG Chem's NanoH₂O[™] seawater RO membranes, incorporated with innovative Thin Film Nanocomposite (TFN) technology, reduce the cost of desalination while delivering superior water quality. Our seawater RO membranes provide industry leading salt rejection and produce 20% more flow than membranes manufactured with conventional technologies. We continue to leverage the technological advantages of our seawater RO membranes to expand our market share accruing more than 1,000 Million Liter per Day (MLD) projects backlog for the last two years.

LG SW ES (Energy Saving) membranes offer significant energy savings while producing good water quality; suitable for low to medium salinity seawater applications.

Product Specifications

Active Membrane	Permeate flow	Stabilized Salt	Minimum Salt	Boron	Feed Spacer,
Area, ft ² (m ²)	rate, GPD (m³/d)	Rejection, %	Rejection, %	Rejection, %	mil
440 (41)	15,070 (57.0)	99.8	99.6	89	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 +/-15%.



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 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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