Overview

LG Chem's thin-film nanocomposite (TFN) membranes lower water treatment costs by improving energy efficiency and productivity. LG Chem's line of NanoH$_2$O™ RO membranes features benign nanomaterials incorporated into the thin-film polyamide layer of a composite membrane. This innovative patented technology significantly increases membrane permeability while matching best-in-class salt rejection.

"ES": Energy-Saving Membranes
· Well suited for low temperature seawater or two-pass systems

"GR", "SR", "R": High Rejection Membranes
· Well suited for high quality permeate requirements or reducing size of second pass
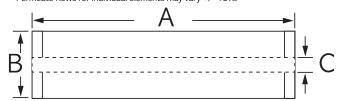
Product Specifications

Configuration : 8-inch spiral wound Membrane Polymer : Thin-film nanocomposite (TFN) polyamide

Product number	Flow Rate m^3/d (GPD)	Minimum NaCl Rejection (%)	Stabilized NaCl Rejection (%)	Stabilized Boron Rejection (%)	Active area m^2 (ft^2)	Feed Spacer Mil *
LG SW 400 ES	52 (13,700)	99.6	99.8	89	37 (400)	28 or 34
LG SW 400 R	34 (9,000)	99.7	99.85	93	37 (400)	28 or 34
LG SW 400 GR	28.4 (7,500)	99.7	99.85	93	37 (400)	28 or 34
LG SW 400 SR	22.7 (6,000)	99.7	99.85	93	37 (400)	28 or 34
LG SW 440 ES	57 (15,070)	99.6	99.8	89	41 (440)	28
LG SW 440 R	37 (9,900)	99.7	99.85	93	41 (440)	28
LG SW 440 GR	31.2 (8,250)	99.7	99.85	93	41 (440)	28
LG SW 440 SR	25 (6,600)	99.7	99.85	93	41 (440)	28

*400 square-foot elements available with either 28 or 34 mil feed spacer

Note : The above values are normalized to the following conditions : 32000 ppm NaCl, 5 ppm boron, 5.5 MPa (800 psi), 25°C (77°F), pH 8, 8% recovery.
Permeate flows for individual elements may vary +/- 15%.

Length A	Element O.D. B	Perm Tube I.D. C	Weight kg (lbs.)
1016 mm (40 in.)	200 mm (7.9 in.)	28.6 mm (1.125 in.)	16.4 (36)

Operating Specifications

For more information and operating guidelines, visit www.LGwatersolutions.com

Max. Applied Pressure :	8.27 MPa (1200 psig)
Max. Chlorine Concentration :	< 0.1 ppm
Max. Operating Temperature :	45°C (113°F)
pH Range, Continuous (Cleaning) :	2-11 (2-12)
Max. Feedwater Turbidity :	1.0 NTU
Max. Feedwater SDI (15 mins) :	5.0
Max. Pressure Drop (ΔP) for Each Element :	0.7 bar (10 psi)

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Nano H$_2$O