LG Chem

LG Water Solutions

Superior Quality Leads to Repeat Customers

Brackish Water Reverse Osmosis (RO) Membranes

Overview

LG Chem's NanoH2O™ brackish water RO membranes serve various municipal and industrial applications and have been operating in the major utilities around the world. Incorporating innovative Thin Film Nanocomposite (TFN) technology, all LG BWRO membranes provide superior performance along with intrinsic anti-fouling property and are suitable for applications where consistent and reliable performance is a must.

LG BW R G2
Superior Rejection, High Flow, High Durability

LG BW AFR
Anti-Fouling, High Rejection

LG BW R
High Rejection

LG BW ES
Energy Saving

LG BW R Dura
High Rejection, High Durability

LG BW UES
Ultra Low Energy

Product Specifications

8-inch spiral wound membranes

Product	Active Membrane Area, ft² (m²)	Permeate Flow Rate, GPD (m³/d)	Stabilized Salt Rejection, %	Minimum Salt Rejection, %	Feed Spacer, mil	Test Conditions
LG BW 400 R G2	400 (37)	11,500(43.7)	99.78	99.65	34	1
LG BW 440 R G2	440 (41)	12,650(47.9)	99.78	99.65	28	1
LG BW 400 R	400 (37)	10,500 (39.7)	99.6	99.5	34	1
LG BW 440 R	440 (41)	11,550 (43.7)	99.6	99.5	28	1
LG BW 400 R Dura	400 (37)	10,500 (39.7)	99.6	99.5	34	1
LG BW 440 R Dura	440 (41)	11,550 (43.7)	99.6	99.5	28	1
LG BW 400 AFR	400 (37)	11,550 (43.7)	99.6	99.5	34	1
LG BW 400 ES	400 (37)	11,550 (43.7)	99.6	99.5	34	2
LG BW 440 ES	440 (41)	11,550 (43.7)	99.6	99.5	28	2

Test Conditions 1: 2,000 ppm NaCl at 25°C (77°F), 225 psi (15.5 bar), pH 7, Recovery 15%. Permeate flows for individual elements may vary +/-15%.
Test Conditions 2: 2,000 ppm NaCl at 25°C (77°F), 150 psi (10.3 bar), pH 7, Recovery 15%. Permeate flows for individual elements may vary +/-15%.

2.5-inch and 4-inch spiral wound membranes

LG BW R

Product	Active Membrane Area, ft² (m²)	Permeate Flow Rate, GPD (m³/d)	Stabilized Salt Rejection, %	Minimum Salt Rejection, %	Feed Spacer, mil
LG BW 4040 R	85 (7.9)	2,500 (9.5)	99.6	99.3	28
LG BW 4021 R	34 (3.2)	1,000 (3.8)	99.6	99.3	28
LG BW 2540 R*	26 (2.5)	750 (2.8)	99.6	99.3	22
LG BW 2521 R	9 (0.9)	345 (1.3)	99.6	99.3	28

Test Conditions: 2,000 ppm NaCl at 25°C (77°F), 225 psi (15.5 bar), pH 7, Recovery 15% (4040 R, 2540 R), 8% (4021 R, 2521 R)
Permeate flows for individual elements may vary +/-20%.
*The product is under development, and figures in the table are subject to change.

LG BW AFR

Product	Active Membrane Area, ft² (m²)	Permeate Flow Rate, GPD (m³/d)	Stabilized Salt Rejection, %	Minimum Salt Rejection, %	Feed Spacer, mil
LG BW 4040 AFR	75 (7.0)	2,300 (8.7)	99.6	99.3	34

Test Conditions: 2,000 ppm NaCl at 25°C (77°F), 225 psi (15.5 bar), pH 7, Recovery 15%.
Permeate flows for individual elements may vary +/-20%.

LG BW ES

Product	Active Membrane Area, ft² (m²)	Permeate Flow Rate, GPD (m³/d)	Stabilized Salt Rejection, %	Minimum Salt Rejection, %	Feed Spacer, mil
LG BW 4040 ES	85 (7.9)	2,500 (9.5)	99.5	99.2	28
LG BW 4021 ES	34 (3.2)	1,000 (3.8)	99.5	99.2	28
LG BW 2540 ES*	26 (2.5)	750 (2.8)	99.5	99.2	22
LG BW 2521 ES	9 (0.9)	345 (1.3)	99.5	99.2	28

Test Conditions: 2,000 ppm NaCl at 25°C (77°F), 150 psi (10.3 bar), pH 7, Recovery 15% (4040 ES, 2540 ES), 8% (4021 ES, 2521 ES)
Permeate flows for individual elements may vary +/-20%.
*The product is under development, and figures in the table are subject to change.

LG BW UES

Product	Active Membrane Area, ft² (m²)	Permeate Flow Rate, GPD (m³/d)	Stabilized Salt Rejection, %	Minimum Salt Rejection, %	Feed Spacer, mil
LG BW 4040 UES	85 (7.9)	2,700 (10.2)	99.0	98.0	28
LG BW 4021 UES	34 (3.2)	1,000 (3.8)	99.0	98.0	28
LG BW 2540 UES	21 (2.0)	800 (3.0)	99.0	98.0	28
LG BW 2521 UES	9 (0.9)	345 (1.3)	99.0	98.0	28

Test Conditions: 500 ppm NaCl at 25°C (77°F), 100 psi (6.9 bar), pH 7, Recovery 15% (4040 UES, 2540 UES), 8% (4021 UES, 2521 UES)
Permeate flows for individual elements will vary with no less than 85% of the specified datasheet flow.