

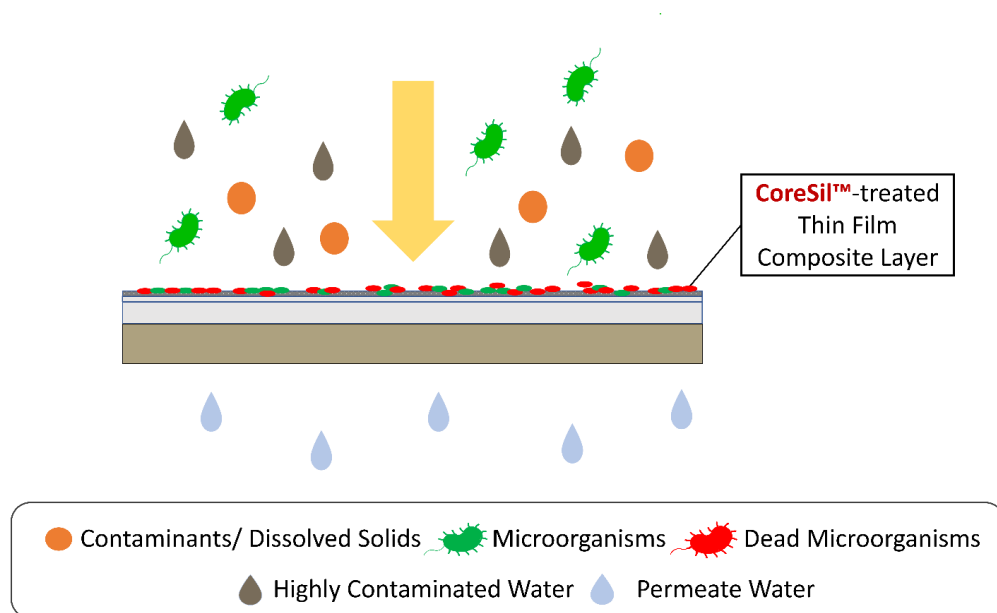


CoreSil™ Anti-fouling Fiberglass Wrapped RO

Advanced Brackish Water Membranes - 4040

Cactus Materials reverse osmosis membranes incorporate innovative CoreSil™ anti-fouling technology to provide superior performance for a wide range of applications, including wastewater treatment and non-potable water reuse. The fiberglass-wrapped brackish RO with CoreSil™ technology delivers high-quality permeate while removing contaminants of concern at low operating pressures. The polyamide thin-film composite membranes with CoreSil™ technology are best suited for applications with challenging feed conditions of high biological fouling potential.

- ❖ Hard fiberglass exterior provides added strength and withstands higher pressure drops than tape-wrapped elements.
- ❖ Reduces biological fouling rates and thus cleaning frequency (up to > 60%).
- ❖ More effective restoration of nominal performance after cleaning.
- ❖ Up to 19% less energy consumption at the same water productivity.
- ❖ CS-XLE elements are designed for operating at low applied pressure for small commercial systems.
- ❖ CS-BW30 elements are designed for delivering high-quality water in light industrial and drinking water applications.
- ❖ CS-TM710D is designed for water sources with medium salinity (2,000-10,000 ppm).

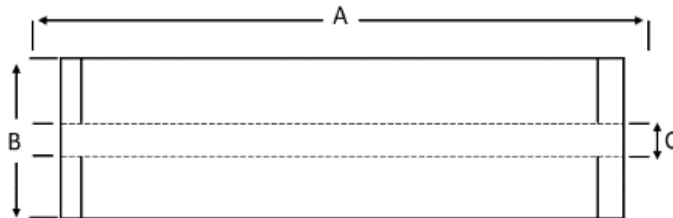


Biofouling Control with CoreSil™ Membrane Technology

Membrane Model	Permeate Flow Rate Range	Maximum Feed Flow	A	B	C	Minimum Salt Rejection
	gpd	gpm	Inches	Inches	Inches	(%)
CS-BW30-4040	2,400	16	40	3.90	0.75	99.5 ¹
CS- BW30-PRO-4040	2,600	16	40	3.90	0.75	99.7 ¹
CS-XLE-4040	2,600	14	40	3.90	0.75	99.0 ²
CS-XLE-PRO-4040	2,750	14	40	4.0	0.75	99.0 ²
CS-TM710D	2,600		40	4.0	0.75	99.0 ¹

Test Conditions¹: 2,000 ppm NaCl feed stream, applied pressure 225 psi (15.5 bar), 77°F (25°C), pH 8 and 15% recovery. Flow rates for individual elements may vary but will be no more than 15% below the value shown.

Test Conditions²: 2,000 ppm NaCl feed stream, applied pressure 125 psig (8.7 bar), 77°F (25°C), pH 8 and 15% recovery. Flow rates for individual elements may vary but will be no more than 15% below the value shown.



Application Specifications (Applicable to All)	
Maximum Chlorine Concentration	< 0.1 ppm
Maximum Operating Pressure	600 psig
Maximum Operating Temperature	113°F (45°C)
Maximum Feed Water Turbidity	1 NTU
Maximum Feed Water SDI (15 min)	4-5
Maximum Pressure Drop	15 psig

Other Specifications	Value	Applicable to:
Feed water pH Range	2-11	CS-BW30-4040, CS-BW30-PRO-4040, CS-XLE-4040
Maximum Pressure Drop	13 psig	CS-XLE-4040, CS-XLE-PRO-4040
Maximum Pressure Drop	15 psig	CS-BW30-4040, CS-BW30-PRO-4040, CS-TM710D

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