

SAN1 – SERIES MEMBRANE ELEMENTS

AXEON® SAN1 – Series Membrane Elements are manufactured using the industry’s leading membrane film technology. These membranes offer reliability, high performance and deliver consistent results for medical applications and sanitary uses. Water treatment professionals have come to rely on the superior performance and dependability of **AXEON SAN1 – Series Membrane Elements**.

AXEON SAN1 – Series Membrane Elements are 4.6 inch diameter reverse osmosis elements that offer high purity water for sanitary applications, using the industry’s leading film technology membrane, which offers excellent salt rejection and permeate flow. These elements are made with the same high quality materials of construction as our other AXEON Membrane Elements used in commercial systems.



BENEFITS

- Individually Inspected, Qualified and Vacuum Tested
- Private Labeling and Customization Available
- High Rejection Rates
- Superior Quality and Cost Savings
- Full-Fit Design

OPERATING LIMITS

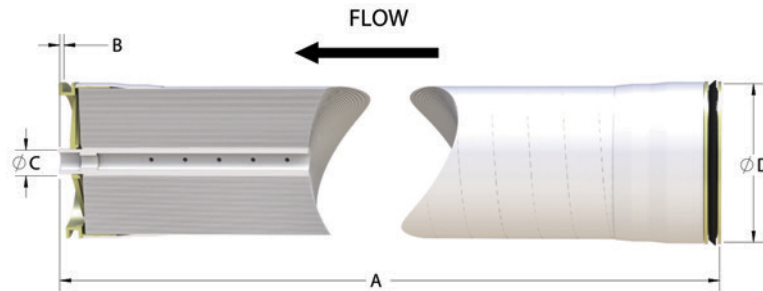
- Membrane Type: Polyamide Thin-Film Composite
- Maximum Operating Temperature (°F / °C): 113 / 45
- Maximum Operating Pressure (psi / bar): 600 / 41
- pH Range, Continuous Operation^A: 2-11
- pH Range, Short Term Cleaning (30 Min.): 1-13
- Maximum Feed Silt Density Index (SDI): 5
- Chlorine / Chloramine Tolerance (ppm): 0

A. Maximum temperature for continuous operations above pH10 is 95°F / 35°C.

SPECIFICATIONS

Part Number	Description	Applied Pressure (psi / bar)	Permeate Flow Rate (gpd / m3/d)	Nominal Salt Rejection (%)
210162	SAN1-4611	225 / 15.51	1,200 / 4.54	99
210163	SAN1-4619	225 / 15.51	1,450 / 5.49	99
210164	SAN1-4641	225 / 15.51	5,200 / 19.68	99

Warranty Evaluation Test Conditions: Permeate flow and salt rejection based on the following test conditions: 2,000 ppm, filtered and dechlorinated municipal tap water, 77°F / 25°C, and the following recovery rates: SAN1-4611: 5%, SAN1-4619: 8%, SAN1-4641: 15% and the specified operating pressure. Minimum salt rejection is 98%. Permeate flows for warranty evaluation may vary +/-20%. Maximum pressure drop at 13 psig / 0.9 bar.



DIMENSIONS (IN / MM)

Description	A	B	C	D
SAN1-4611	11.32 / 287.53	N/A	0.75 / 19.05	4.61 / 117
SAN1-4619	19.20 / 487.68	N/A	0.75 / 19.05	4.61 / 117
SAN1-4641	41.31 / 1,049	2.19 / 56	0.75 / 19.05	4.61 / 117

Note: Proper start-up of reverse osmosis water treatment systems is essential to prepare the membranes for operating service and to prevent membrane damage due to overfeeding or hydraulic shock. Before initiating system start-up procedures, membrane pretreatment, loading of the membrane elements, instrument calibration and other system checks should be completed. Avoid any abrupt pressure or cross-flow variations on the spiral elements during start-up, shutdown, cleaning or other sequences to prevent possible membrane damage. During start-up, a gradual change from a standstill to operating state is recommended as follows:

- Feed pressure should be increased gradually over a 30-60 second time frame.
- Cross-flow velocity at set operating point should be achieved gradually over 15-20 seconds.
- Permeate obtained from first hour of operation should be discarded.
- Maximum pressure drop across an entire pressure vessel (housing) is 30 psi / 2.1 bar.
- Avoid static permeate-side backpressure at all times.

Under certain conditions, the presence of free chlorine, chloramines and other oxidizing agents will cause premature membrane failure. Since oxidation damage is not covered under warranty, the manufacturer recommends removing all oxidizing agents by pretreatment prior to membrane exposure. Please contact the manufacturer or your supplier for more information.

Do not use this initial permeate for drinking water or food preparation. Keep elements moist at all times after initial wetting. To prevent biological growth during prolonged system shutdowns, it is recommended that membrane elements be immersed in a preservative solution. Rinse out the preservative before use. For membrane warranty details, please contact the manufacturer or your supplier for more information.

If operating limits and guidelines given in this product specification sheet are not strictly followed, the warranty will be null and void. The customer is fully responsible for the effects of incompatible chemicals and lubricants on elements. Use of any such chemicals or lubricants will void the warranty. These membranes may be subject to drinking water application restrictions in some countries: please check the application status before use and sale. The use of this product in and of itself does not necessarily guarantee the removal of cysts and pathogens from water. Effective cyst and pathogen reduction is dependent on the complete system design and on the operation and maintenance of the system.

No freedom from infringement of any patent owned by the manufacturer or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, customer is responsible for determining whether products and the information in this document are appropriate for customer's use and for ensuring that customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. The claims made may not have been approved for use in all countries. The manufacturer assumes no obligation or liability for the information in this document. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.