



TRISEP® XN45

High Flow NF Membrane

TRISEP® XN45 flat sheet is a piperazine-based nanofiltration membrane with the versatility to be used in process streams as well as low pressure water purification. XN45 membrane has high rejection of divalent ions while allowing the great majority of monovalent ions to pass through the membrane. With a molecular weight cut-off in the range of 300-500 Daltons, XN45 is ideal for the demineralization of organic solutes. XN45 membrane sheet is available in both dry and wet flat sheet rolls and is FDA compliant.

MEMBRANE CHARACTERISTICS

Membrane Chemistry	Backing Material	Stabilized MgSO ₄ Rejection (%) ^a	MgSO ₄ Rejection Bounds (%)
Thin-Film Polypiperazine	Non-Woven Polyester	96.0	94.0 - 98.0

Flux Range LMH (GFD) ^b	Thickness (µm)	pH Range	Chlorine Tolerance ^c
47.6 - 73.1 (28.0 - 43.0)	130 - 170	1.0 - 12.0	< 0.1 ppm

a Typical NaCl rejection: 20%

b Test conditions: 2,000 ppm MgSO₄, 7.6 bar (110 psi), 25°C (77°F), 15% recovery, pH 8.0, 30 minutes operation. Membrane specifications may change without notice as design revisions occur.

c Oxidizing agents, such as free chlorine, in contact with piperazine membranes may result in shortened operating life or membrane failure.

IMPORTANT INFORMATION

Standard Sizes: TRISEP flat sheet membrane is available in a sample size of 305 mm x 1,016 mm (12 in x 40 in) and in a nominal roll size of 305 m x 1,016 mm (1,000 ft x 40 in). Custom lengths may be available on request.

Initial Flush: MANN+HUMMEL Water & Fluid Solutions recommends flushing membrane for 30 minutes and discarding permeate during the flush prior to operation.

Storage: Membrane is shipped dry unless wet membrane is specifically requested. Membrane shipped dry should be stored in a cool, dry place. If shipped wet, TRISEP membrane must remain sealed and refrigerated prior to use. Please see Membrane Storage Guide – Flat Sheet Membrane (TSG-O-011).

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