Product Data Sheet-Material Separation Nanofiltration Membrane

Core Filtration, Clear Solutions

FFM-N8040GL-1K

FFM Alkaline-Resistant Nanofiltration Membranes precision demineralization for dairy lactose purification, plant protein refining, antibiotic concentration, and textile wastewater reuse. Features with pH 2-14 stability, 1,500+ NaOH cycles, >95% divalent ion rejection retention, and low irreversible fouling-maximizing membrane lifespan in aggressive caustic environments.

Performance Parameters

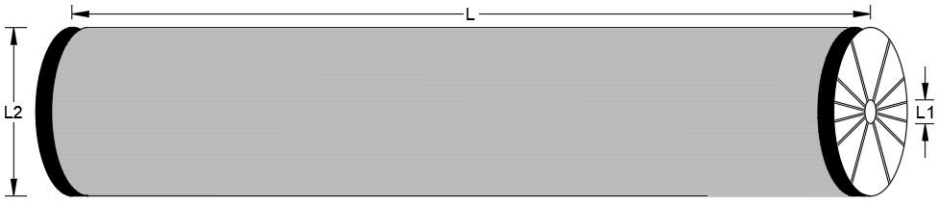
Membrane Material:	Special Composite Materials
Structure:	Sanitary Spiral-Wound Mesh Design
Effective Retention Accuracy:	1000 Dalton
Permeate Tube:	CPVC
Standard Treatment Solution:	20% (W/W) NaOH, Or 10% (W/W) KOH

Item	31 mil	46 mil
Maximum Salt rejection ($MgSO_4$)	97.0%	97.0%
Minimum Salt rejection ($MgSO_4$)	95.0%	95.0%
Standard Permeate Flow	6500 gpd (24.6 m^3/d)	5000 gpd (18.9 m^3/d)

Test conditions: 2000 mg/L $MgSO_4$ Solution
86 F(30 ℃) Operating Temperature
145 psi (1.0 Mpa) Applied Pressure
15% Permeate Recovery

*Single-element water outlet tolerance: ±20% (standard conditions).

Product Specifications



Dimensions-inches(mm)		
L	L1	L2
40.0(1016)	1.1(28.9)	8.0(203)

Active Membrane Area-ft^2(m^2)	
31 mil	46 mil
308(28.6)	210(19.5)

Operation Parameters

Maximum Operating Temperature:	122 °F (50 °C)
Recommended Operating Pressure:	220-510psi (1.5-3.5 Mpa)
pH Range,Continuous Operation:	2.0-14.0(25°C)
pH Range, Ceb:	2.0-14.0(25°C)
Design Pressure Drop per Membrane Element:	10 psi (0.07 Mpa)
Design Pressure Drop per Membrane Housing (5 Elements in Series):	60 psi (0.42 Mpa)

*For specialized applications or customized solutions, please contact FFM Inc. directly.