



FFM-N4040GBL-500

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:	500 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	2240 gpd (8.5 m ³ /d)	1530 gpd (5.8 m ³ /d)

Test conditions:	2000 mg/L MgSO ₄ Solution
	86 °F(30 °C) 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)	0.75(19.0)	3.9(99.0)

Active Membrane Area-ft ² (m ²)	
31 mil	46 mil
60.3(5.6)	43.1(4.0)

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.