Product Data Sheet

FilmTec™ NF270-370/34-FF Element

Sanitary Nanofiltration Element

Description

IDEAL for: Purification and separation of streams unique to bio-processing, specialty and bio-medical separations, and food and dairy.

The elements contain improved polyamide thin-film composite nanofiltration membrane designed primarily for organic and color removal. FilmTec™ NF270 has excellent rejection of divalent ions, as well as organics with a molecular weight above 400 amu, while featuring monovalent rejection of about 40 – 60%.

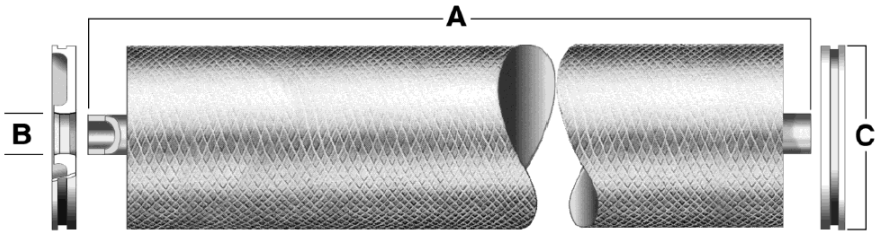
These elements deliver high flux and outstanding permeate quality for applications requiring sanitary grade membrane elements. The full-fit configuration with polypropylene mesh covering minimizes stagnant areas and is optimal for applications requiring a sanitary design. All components comply with FDA indirect food contact.

Typical Properties

FilmTec™ Membranes	Part Number	Active Area $ft^2(m^2)$	Feed Spacer Thickness (mil)	Permeate Flow Rate gpd (m^3/d)	Stabilized Permeate Flow Rate gpd (m^3/d)	Stabilized Salt Rejection (%)	Minimum Salt Rejection (%)
NF270-370/34-FF	12028819	400 (37)	34	11,500 (43.5)	13,700 (51.8)	> 97.0	97.0

1. Permeate flow and salt rejection based on the following standard test conditions:2,000 mg/l $MgSO_4$, 70 psi (4.8 bar), 77°F (25°C) and 15% recovery.
2. Flowrates for individual elements may vary but will be no more than ± 20%.
3. Stabilized salt rejection is generally achieved within 24 – 48 hours of continuous use, depending upon feedwater characteristics and operating conditions.
4. Sales specifications may vary as design revisions take place.
5. Active area guaranteed ± 5%. Active area as stated by DuPont Water Solutions is not comparable to nominal membrane area often stated by some manufacturers.

Element Dimensions



	A		B		C	
Product	**(in.)**	**(mm)**	**(in.)**	**(mm)**	**(in.)**	**(mm)**
NF270-370/34-FF	40.00	1,016	1.125	25.6	7.9	201

1. Refer to FilmTec™ Design Guidelines for multiple-element systems of 8-inch elements (Form No. 45-D01695-en).
2. Element to fit nominal 8-inch (203-mm) I.D. pressure vessels.

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Operating and Cleaning Limits

Maximum Operating Temperature [a]	113ºF (45ºC)
Maximum Operating Pressure	600 psi (41 bar)
Maximum Differential Pressure	15 psi (1.0 bar)
Maximum Feed Turbidity	1 NTU
Free Chlorine Tolerance	Below Detectable Limits
pH Range	
Continuous Operations [a]	3 – 10
Short-Term Cleaning (30 min) [b]	1 – 12
Maximum Feed Turbidity	1 NTU
Maximum Feed Silt Density Index (SDI)	5
Free Chlorine Tolerance [c]	< 0.1 ppm

a. Maximum temperature for continuous operation above pH 10 is 95°F (35°C).
b. Refer to FilmTec™ Cleaning Guidelines (Form No. 45-D01696-en).
c. Under certain conditions, the presence of free chlorine and other oxidizing agents will cause premature membrane failure. Since oxidation damage is not covered under warranty, DuPont Water Solutions recommends removing residual free chlorine by pretreatment prior to membrane exposure. Please refer to Dechlorinating Feedwater (Form No. 45-D01569-en) for more information.

Warranty Information

Reference warranty document: Supplier's 1-Year Prorated Limited Element Warranty for DuPont™ Specialty Membranes (Form No. 45-D00662-en).

Additional Important Information

Before use or storage, review these additional resources for important information:

- Usage Guidelines for FilmTec™ 8" Elements (Form No. 45-D01706-en)
- Start-Up Sequence (Form No. 45-D01609-en)

Regulatory Note

This product may be subject to drinking water application restrictions in some countries; please check the application status before use and sale.

Product Stewardship

DuPont has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with DuPont products—from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

DuPont strongly encourages its customers to review both their manufacturing processes and their applications of DuPont products from the standpoint of human health and environmental quality to ensure that DuPont products are not used in ways for which they are not intended or tested. DuPont personnel are available to answer your questions and to provide reasonable technical support. DuPont product literature, including safety data sheets, should be consulted prior to use of DuPont products. Current safety data sheets are available from DuPont.

Please be aware of the following:

- 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.

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Have a question? Contact us at:

www.dupont.com/water/contact-us

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