



Product Data Sheet

FilmTec™ NF270-400/34i Element

Description

Ideal for: utility managers and operators dealing with surface and groundwater and seeking a technology that removes a high percentage of total organic carbon (TOC) and trihalomethan (THM) precursors while having a medium to high salt passage and medium hardness passage.



The FilmTec™ NF270-400/34i Element:

- Provides organic removal with partial softening in order to maintain a minimum level of hardness for organoleptic properties and preservation of distribution networks
- Delivers high productivity, cleanability and low energy consumption due to its high active area and wide cleaning pH range (1-12) tolerance
- Includes iLEC™ interlocking end caps, reducing system operating costs and the risk of o-ring leaks that can cause poor water quality

Product Type

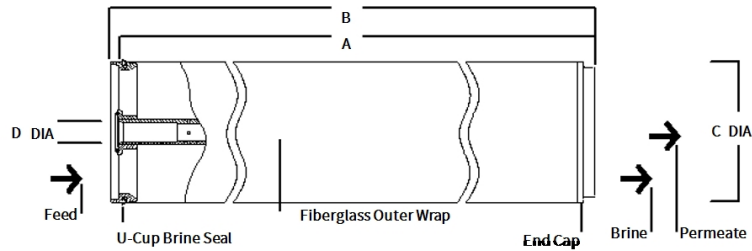
Spiral-wound element with polypiperazine thin-film composite membrane

Typical Properties

| FilmTec™ Element | Active Area | | Feed Spacer | Permeate Flow Rate | | Typical Stabilized | Minimum Salt |
|------------------|--------------------|-------------------|-----------------|--------------------|---------------------|--------------------|---------------|
| | (ft ²) | (m ²) | Thickness (mil) | (GPD) | (m ³ /d) | Salt Rejection (%) | Rejection (%) |
| NF270-400/34i | 400 | 37 | 34-LDP | 12,500 | 47 | >97.0 | 97.0 |

1. Permeate flow and salt passage based on the following test conditions: 2,000 mg/l MgSO₄, 70 psi (4.8 bar), 77°F (25°C) and 15% recovery.
2. Flow rates for individual elements may vary but will be no more than ± 15%.
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 ± 3%. Active area as stated by DuPont Water Solutions is not comparable to nominal membrane area often stated by some manufacturers.

Element Dimensions



| FilmTec™ Element | Dimensions – inches (mm) | | | | 1 inch = 25.4 mm | | | |
|------------------|--------------------------|-------|-------|-------|------------------|------|----------|-------|
| | A | | B | | C | | D | |
| | (in.) | (mm) | (in.) | (mm) | (in.) | (mm) | (in.) | (mm) |
| NF270-400/34i | 40.0 | 1,016 | 40.5 | 1,029 | 7.9 | 201 | 1.125 ID | 29 ID |

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 vessel.
3. Individual elements with iLEC™ endcaps measure 40.5 inches (1,029 mm) in length (B). The net length (A) of the elements when connected is 40.0 inches (1,016 mm).

Operating and Cleaning Limits

| | |
|--|-------------------|
| Maximum Operating Temperature ^a | 113°F (45°C) |
| Maximum Operating Pressure | 600 psig (41 bar) |
| Maximum Element Pressure Drop | 15 psig (1.0 bar) |
| pH Range | |
| Continuous Operation ^a | 3 - 10 |
| Short-Term Cleaning (30 min.) ^b | 1 - 12 |
| Maximum Feed Silt Density Index (SDI) | 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.

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)

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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.

Regulatory Note

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

Have a question? Contact us at:

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