

# New Large Commercial Product Portfolio

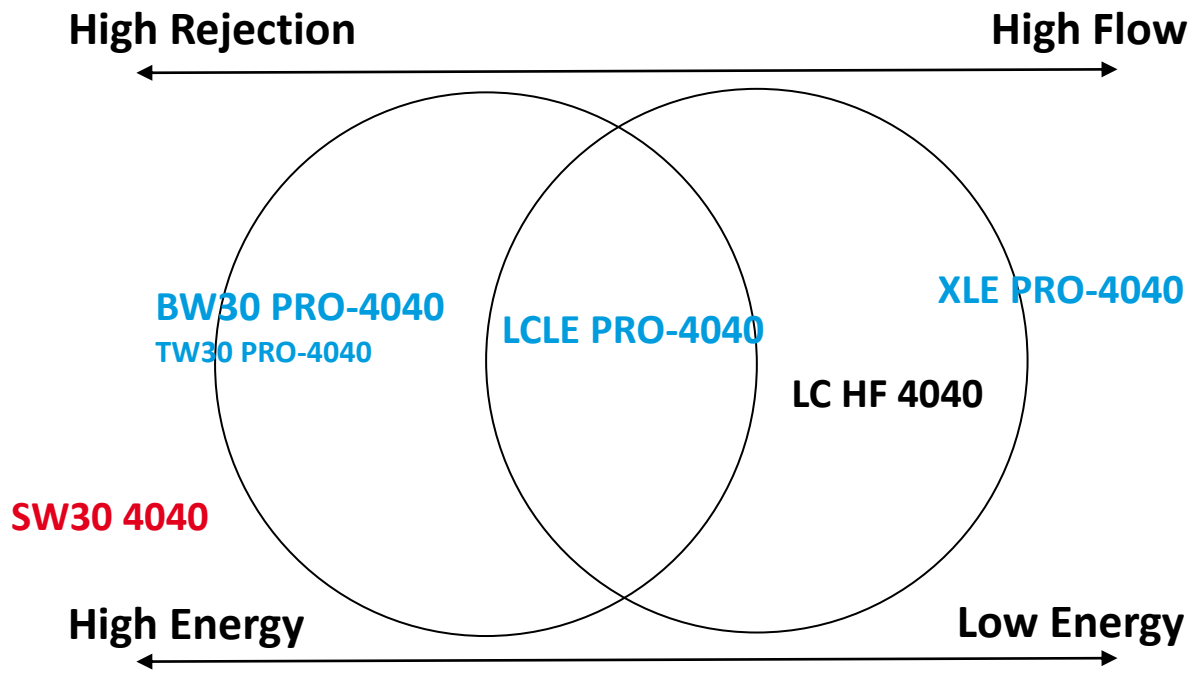


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# Next Generation Large Commercial Portfolio

DuPont introduces the new FilmTec™ Large Commercial portfolio to boost the performance of your system to a prime level while reaching an unparalleled sustainability impact



The membrane used have the following features

- BW – Brackish Water
- TW – Tape wrapped
- LE – Low Energy
- SW– Seawater Treatment
- HF – High Flow
- XLE – Extra Low Energy

PRIME RO

BW30 PRO-4040  
TW30 PRO-4040  
LCLE PRO-4040  
XLE PRO-4040

Not PRIME RO

- SW30 4040 – FilmTec™ RO
- LC HF 4040 – TapTec™ RO



# Next Generation Large Commercial Portfolio

## Existing Solutions

<p><b><u>Premium</u></b></p> <p><b><u>FilmTec™</u></b></p> <ul style="list-style-type: none"><li>• LC HR 4040</li><li>• LC LE 4040</li><li>• BW30 4040 (BW30 2540)</li><li>• TW30 4040 (TW30 2540)</li><li>• SW30 4040 (SW30 2540)</li><li>• XLE 4040 (XLE 2540)</li></ul>
<p><b><u>Mid Tier</u></b></p> <p>No existing Mid tier offerings</p>

98 GMID

## Next Generation Solutions

<p><b><u>High Rejection</u></b></p> <ul style="list-style-type: none"><li>• BW30 PRO-4040 (BW30 PRO-2540 )<ul style="list-style-type: none"><li>• TW30 PRO-4040 (TW30 PRO-2540)</li></ul></li><li>• LC LE PRO-4040</li><li>• SW30 4040 (SW30 2540)</li></ul>
<p><b><u>High Flow</u></b></p> <ul style="list-style-type: none"><li>• XLE PRO-4040 (XLE PRO-2540)</li><li>• LC HF 4040</li></ul>

~ 12 to 15 GMID  
Including LC HF 4040



LC HF 4040 – TapTec™ RO



# Next Generation FilmTec™ Large Commercial Portfolio

## High Rejection

	BW30 PRO-4040/ TW30 PRO-4040
Brand	FilmTec™
Stabilized Salt Rejection %	99.7%
Minimum Rejection	99.5 %
Flow rate GPD	2600±15%
Active Area sqft	85
2540 Version	Yes

## High Flow

	LCLE PRO-4040	XLE PRO-4040
Brand	FilmTec™	FilmTec™
Stabilized Salt Rejection %	99.4%	99%
Minimum Rejection	99.0%	97.0%
Flow rate GPD	2500 ±20%	2750 +/-20%
Active Area sqft	94	87
2540 Version	No	Yes

## Sea Water

	SW30 4040
Brand	FilmTec™
Stabilized Salt Rejection %	99.75%
Minimum Rejection	99.50%
Flow rate GPD	1950+/-20%
Active Area sqft	85
2540 Version	Yes

Improved Specifications

**High Rejection** test conditions:  
2,000 ppm NaCl and 225 psig  
(15.5 bar), pH 8, 77°F (25°C)and  
15% recovery

**High Flow** test conditions:  
**LCLE PRO-4040**: 2000 ppm NaCl and 125 psig, pH 8, 77°F  
(25°C)and 15% recovery  
**XLE PRO-4040** : 2000 ppm NaCl feed stream, pressure 125 Psi,  
77°F (25°C)and the recovery rates 15%

**Sea water** test  
conditions: 32,000 ppm  
NaCl, 800 psi (5.5 MPa),  
77°F (25°C), 8%  
recovery, pH 8.





PROven  
PROgressive  
PROductive  
PROficient  
PROminent






















## ***DuPont introduces the Next Generation FilmTec™ Large Commercial Portfolio***

- Based on the historical FilmTec™, with more than 40 years of manufacturing experience
- Continuous innovation to reach unparalleled combination of product specifications, durability and cleanability
- Enables customers to benefit from up to 8% in improvement in flux while improving permeate quality by up to 50%\*
- Outstanding performance and durability compared to other available alternatives

\* Comparison of BW30 4040 vs BW30 PRO-4040



# Replacement Guide

	BW30 PRO-4040	TW30 PRO-4040	LC LE PRO-4040	XLE PRO-4040	SW30-4040
BW30 4040	<div> <div>        </div> </div>				
LC HR 4040	<div> <div>   </div> </div>				
TW30 4040		<div> <div>        </div> </div>			
LC LE 4040			<div> <div>   </div> </div>		
XLE 4040					
SW30HRLE 4040					<div> <div>   </div> </div>
SW30 4040					<div> <div>  </div> </div>

- Lower energy = Lower size pump = Lower Capex
- Higher rejection = Lower salt passage = Higher permeate quality
- Better Fouling resistance = Longer life = Lower Opex



### Energy

- 5% improvement – 1 point



### Permeate Quality

- 10% Improvement – 1 point



### Fouling Resistance

- Thicker feed spacer – 1 point
- Fouling resistance chemistry – 1point



# Product GMIDs

Large Commercial PRIME RO
FILMTEC™ Membranes 1119444 BW30 PRO-4040 GMID 12080524 DRY
FILMTEC™ MEMBRANES 1119446 TW30 PRO-4040 GMID 12080472 DRY
FILMTEC™ MEMBRANES 1119443 LCLE PRO-4040 GMID 12081512 DRY
FILMTEC™ MEMBRANES 1119467 XLE PRO-4040 GMID 12082995 DRY
FILMTEC™ MEMBRANES 1119445 TW30 PRO-2540 GMID 12081019 DRY
FILMTEC™ MEMBRANES 1119447 BW30 PRO-2540 GMID 12081023 DRY
FILMTEC™ MEMBRANES 1119464 XLE PRO-2540 GMID 12082909 DRY

Large Commercial Seawater RO
FILMTEC™ Membranes 1119465 SW30 4040 GMID 12082966 WET
FILMTEC™ MEMBRANES 1119466 SW30 2540 GMID 12082989 WET

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# FilmTec™ Large Commercial Product Data Sheets

- Clear, simplified and differentiated value proposition
- New links to the products' operational limits
- Content consolidated in 2 pages



## FilmTec™ BW30 PRO-4040 & BW30 PRO-2540

Fiberglassed Large Commercial Elements for Challenging Water Conditions

### Key Features

- Delivers consistent water quality and higher rejection and flow than previous generation FilmTec™ BW30 product
- Based on historical FilmTec™ BW30 industry-standard RO membrane with decades of proven performance
- Outstanding durability resulting in stable, long-term performance and sustainable water solutions
- Enhanced fouling protection
- Dry elements achieve quick stabilization

### Key Applications

- Light industrial & Drinking water applications requiring stringent permeate quality
- Harsh feed water conditions

### Typical Properties

Product	Part Number	Feed Spacer Thickness (mil)	Permeate Flow Rate gpd (m³/d)	Stabilized Salt Rejection %
BW30 PRO-4040	12080234	31	2,600 (9.8)	99.7
BW30 PRO-2540	12081019	28	1,000 (3.8)	99.7

1. Permeate flow and salt rejection based on the following test conditions: 2,000 ppm NaCl and 225 psig (15.5 bar), pH 8, 77°F (25°C) and 15% recovery.
2. Minimum salt rejection is 99.5%.
3. Permeate flows for individual elements may vary +/- 15%.

### Element Dimensions



1. Refer to FilmTec™ Design Guidelines for multiple-element systems of midsize elements (Form No. 45-D01688-en).
2. BW30 PRO-2540 Elements fit nominal 2.5-inch I.D. pressure vessel. BW30 PRO-4040 Elements fit nominal 4-inch I.D. pressure vessel.



## FilmTec™ TW30 PRO-4040 & TW30 PRO-2540

Tape-Wrapped Large Commercial Elements for Challenging Water Conditions

### Key Features

- Delivers consistent water quality and higher rejection and flow than previous generation FilmTec™ TW30 product
- Based on historical FilmTec™ TW30 industry-standard RO membrane with decades of proven performance
- Outstanding durability resulting in stable, long-term performance and sustainable water solutions
- Enhanced fouling protection
- Dry elements achieve quick stabilization

### Key Applications

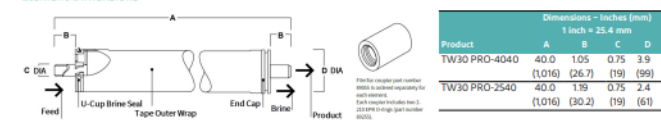
- Light industrial & Drinking water applications requiring stringent permeate quality
- Harsh feed water conditions

### Typical Properties

Product	Part number	Spacer Thickness (mil)	Permeate Flow Rate gpd (m³/d)	Stabilized Salt Rejection (%)
TW30 PRO-4040	12080472	31	2,600 (9.8)	99.7
TW30 PRO-2540	12081019	28	1,000 (3.7)	99.7

1. Permeate flow and salt rejection based on the following test conditions: 77°F (25°C), 15% recovery and 225 psig (15.5 bar) for both TW30 PRO-4040. FilmTec™ TW30 PRO-2540. Both specifications are based on a 2,000 ppm NaCl feed stream.
2. Minimum salt rejection for both TW30 PRO-4040 and TW30 PRO-2540 are 99.5%.
3. Permeate flows for individual elements may vary +/- 20%.
4. For the purpose of improvement, specifications may be updated periodically.

### Element Dimensions



1. Refer to FilmTec™ Design Guidelines for multiple-element systems of midsize elements (Form No. 45-D01688-en).
2. FilmTec™ TW30 PRO-4040 and FilmTec™ XLE-4040 Elements fit nominal 4-inch I.D. pressure vessel.





# FilmTec™ Large Commercial Product Marcom Materials

## • Catalogues



## • Videos



# FilmTec™ Large Commercial Product WAVE Program



- BW30 PRO 4040
- TW30 PRO 4040
- LCLE PRO 4040
- XLE PRO 4040
- BW30 PRO 2540
- TW30 PRO 2540
- XLE PRO 2540
- SW30 4040
- SW30 2540



# FilmTec™ Large Commercial Elements



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## Membrane made in USA

- DuPont patented technology developed in USA
- FilmTec™ membranes are manufactured in USA

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## Robust Quality Process

- FilmTec™ Qualifying tests before commercialization
- Membrane and elements production are managed by quality process

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## International Certifications

- Both FilmTec™ membrane and elements production are certified by international certifications ( NSF, MOH)



# FAQ (Frequent Ask Questions)

1. **Why is DuPont streamlining and upgrading the Large Commercial (LC) product Portfolio?** We have been losing market shares in LC market globally. In addition, we have too many GMIDs in our existing portfolio. Hence, we need a new and leaner product portfolio with the right price to win in the global Large Commercial (LC) market.
2. **Is DuPont still manufacturing the LC products ? Why DuPont has different COO?** DuPont is a multiple national company , has footprint globally which consists of numerous assets and partnership to manufacture and deliver products with DuPont 's quality standard. Moreover , availability and accessibility of elements are critical for the LC segment. In the new normal, having a single source of supply is challenging to provide the right product. Therefore, DuPont will manufacture and ship LC elements from multiple locations in order to support our customer with top notch quality products and services .
3. **Is DuPont facing supply chain issues for LC products?** Yes, we do. Last 12 months, it had been challenging for many companies to meet the market demand due to ever growing global challenges of supply, locked downs, labor & raw material shortages. DuPont is fully committed to the LC market and one of its priorities is to create more LC supply to support the growing market demands. DuPont has employed a flexible manufacturing strategy to support a consistent and reliable supply while meeting the needs of the market under which no matter wherever the origin of production is, it replicates and build on robust quality and membrane technology employed in Edina, Minn., USA, . We always ensure the same level of quality and service our customers have come to expect from us and the same can be vouched by the customers who have experienced FilmTec's product from KSA (Kingdome of Saudi Arabia).
4. **What will happen for those customers using discontinued LC products ?** We will offer a grace period (after external communication ), which allows customers to continue their purchase of these discontinued LC products. Our team will help the customers to transit from the discontinued products to newly upgraded products.





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