

# QuantumFlux™

Product Data Sheet

## Pressurized UF Membrane Design and Operating Parameters

LG QuantumFlux™ UF hollow fiber membranes are manufactured using Polyvinylidene Fluoride(PVDF) chemistry through the TIPS\* process, ensuring exceptional chemical and mechanical durability. These membranes are offered in a range of module configurations, allowing users to select the optimal setup for new projects and enabling seamless retrofit in existing installations.

\*TIPS: Thermally Induced Phase Separation

### Key Features & Benefits

<p><b>Excellent Mechanical Durability</b></p> <p>Exceptional mechanical strength reduces fiber breakage and extends fiber lifespan</p>	<p><b>Excellent Chemical Durability</b></p> <p>Excellent resistance to acids, caustics and oxidants</p>	<p><b>Optimized Module Internal Design</b></p> <p>Minimized solid accumulation and membrane fouling</p>	<p><b>Outside-in Filtration</b></p> <p>Versatile operation for a wider range of solid loadings</p>
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### 6" Module Series

Module Types	QuantumFlux™ P0615-S / P0615-D	QuantumFlux™ P0620-S / P0620-D
Filtration Surface Area (m <sup>2</sup> ) [ft <sup>2</sup> ]	40 [430]	50 [538]
Typical Filtrate Flowrate (m <sup>3</sup> /hr) [gpm]	1.6–4.8 [7.0–21.1]	2.0–6.0 [8.8–26.4]
Filtration Mode	Outside-in	
Typical Flux (LMH) [gfd] <sup>1</sup>	40–120 [25–70]	
Operating Temperature (°C) [°F]	5–40 [41–104]	
pH Range	Operating: 2–12; Cleaning: 1–14	
Air Scour Flowrate (m <sup>3</sup> /hr/module) [cfm]	5 [2.9]	
Instantaneous Chlorine Tolerance (ppm)	10,000	
Maximum Lifetime Chlorine Tolerance (ppm-hrs)	3,000,000	
Maximum Feed Turbidity (NTU) <sup>2</sup>	300	
Maximum Transmembrane Pressure (bar) [psi]	2 [29]	
Maximum Feed Pressure (bar) [psi] <sup>3</sup>	3 [44]	
Oil Content in Feed Water (ppm)	< 2	
Allowed Particle Size in Feed Water (mm) <sup>2</sup>	≤ 0.5, ≤ 0.12 for Seawater Feeds	

1. Flux selection depends on feed type and water quality. Please consult LG Water Solutions for flux selection.
2. Please consult LG Water Solutions for deviations.
3. At temperatures of 40°C.

### 9" Module Series

Module Types	QuantumFlux™ P0915-S / P0915-IP	QuantumFlux™ P0920-S / P0920-IP
Filtration Surface Area (m <sup>2</sup> ) [ft <sup>2</sup> ]	51 [549]	77 [829]
Typical Filtrate Flowrate (m <sup>3</sup> /hr) [gpm]	2.0–6.1 [8.9–26.9]	3.0–9.2 [13.2–40.5]
Filtration Mode	Outside-in	
Typical Flux (LMH) [gfd] <sup>1</sup>	40–120 [25–70]	
Operating Temperature (°C) [°F]	5–40 [41–104]	
pH Range	Operating: 2–12; Cleaning: 1–14	
Air Scour Flowrate (m <sup>3</sup> /hr/module) [cfm]	5–12 [2.9–7.1]	
Instantaneous Chlorine Tolerance (ppm)	10,000	
Maximum Lifetime Chlorine Tolerance (ppm-hrs)	3,000,000	
Maximum Feed Turbidity (NTU) <sup>2</sup>	300	
Maximum Transmembrane Pressure (bar) [psi]	2.1 [30]	
Maximum Feed Pressure (bar) [psi] <sup>3</sup>	6.25 [91]	
Oil Content in Feed Water (ppm)	< 2	
Allowed Particle Size in Feed Water (mm) <sup>2</sup>	≤ 0.5, ≤ 0.12 for Seawater Feeds	

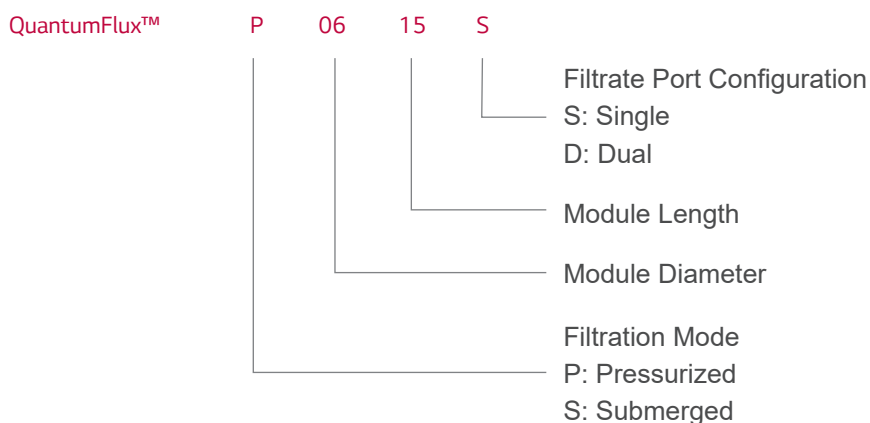
1. Flux selection depends on feed type and water quality. Please consult LG Water Solutions for flux selection.
2. Please consult LG Water Solutions for deviations.
3. At temperatures of 20°C.

## 10" Module Series

Module Types	QuantumFlux™ P1010-S	QuantumFlux™ P1015-S	QuantumFlux™ P1020-S
Filtration Surface Area (m <sup>2</sup> ) [ft <sup>2</sup> ]	55 [592]	80 [861]	120 [1,290]
Typical Filtrate Flowrate (m <sup>3</sup> /hr) [gpm]	2.2–6.6 [10–29]	3.2–9.6 [14–42]	4.8–14.4 [21–63]
Filtration Mode	Outside-in		
Typical Flux (LMH) [gfd] <sup>1</sup>	40–120 [25–70]		
Operating Temperature (°C) [°F]	5–40 [41–104]		
pH Range	Operating: 2–12; Cleaning: 1–14		
Air Scour Flowrate (m <sup>3</sup> /hr/module) [cfm]	15 [9]		
Instantaneous Chlorine Tolerance (ppm)	10,000		
Maximum Lifetime Chlorine Tolerance (ppm-hrs)	3,000,000		
Maximum Feed Turbidity (NTU) <sup>2</sup>	300		
Maximum Transmembrane Pressure (bar) [psi]	2 [29]		
Maximum Feed Pressure (bar) [psi] <sup>3</sup>	3 [44]		
Oil Content in Feed Water (ppm)	< 2		
Allowed Particle Size in Feed Water (mm) <sup>2</sup>	≤ 0.5, ≤ 0.12 for Seawater Feeds		

1. Flux selection depends on feed type and water quality. Please consult LG Water Solutions for flux selection.
2. Please consult LG Water Solutions for deviations.
3. At temperatures of 40°C.

## Product Nomenclature



The product performance is expressly conditioned on Buyer's storing, installing, operating, and maintaining Product in accordance with industry accepted good practices and Seller's written instructions provided in the Seller's Technical Manual may be viewed and downloaded at [www.lgwatersolutions.com](http://www.lgwatersolutions.com) information and data contained herein are Deemed to be accurate and reliable and are offered in good faith, but without guarantee of performance. LG Chem assumes no liability for results obtained or damages incurred

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