NephroCan

RETHINKING HEMODIALYSIS

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POLYETHERSULFONE DIALYZER BROCHURE





CANADIAN LEADER IN HEMODIALYSIS

Canadian company

headquartered in

Vancouver, BC

integrated product and service offering for patients living with End Stage Renal Disease (ESRD), in accordance with medical device regulations and international standards. NephroCan equipment and consumables are made with high quality components, enabling healthcare providers to customize safe, effective, and efficient dialysis treatments for patients.

NephroCan provides a fully

Specialists in hemodialysis therapy products

> **Fully integrated** product and service company

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In-house design, technology and manufacturing

Multiple manufacturing sites

NephroCan is CE and ISO certified

HIGH FLUX POLYETHERSULFONE SPECIFICATIONS

Polyethersulfone High Flux Hollow Fiber Hemodialyzer Specifications*

Sterilized with Gamma Irradiation (R)							
		Blood Flow Rate (mL/min)	NephroPES130R	NephroPES160R	NephroPES180R	NephroPES200R	
Clearances (mL/min)	Urea	QB= 200	197	196	198	199	
		QB= 300	270	285	288	291	
	Creatinine	QB= 200	192	193	197	197	
		QB= 300	255	269	279	286	
	Phosphate	QB= 200	181	189	194	196	
		QB= 300	236	254	262	279	
	Vitamin B ₁₂	QB= 200	147	160	165	172	
		QB= 300	168	186	194	211	
	Inulin	QB= 200	107	120	127	132	
		QB= 300	116	134	144	154	
Surface Area (m ²)			1.3	1.6	1.8	2.0	
Blood Priming Volume (mL)			72	89	110	114	
Ultrafiltration Coefficient (mL/mmHg.hr)			58.3	67.0	84.2	87.5	
KoA (mL/ min)			1140	1610	1770	1980	
Membrane							
Membrane Material			Dry Non-Cellulosic Membrane High Flux Polyethersulfone				
Wall Thickness (µm)			30 ± 5				
Inner Diameter (µm)			200 ± 15				
Maximum TMP (mmHg)			500				
Sieving Coefficient**							
β2-Microglobulin			> 0.5				
Albumin			< 0.002				

QB: Blood flow

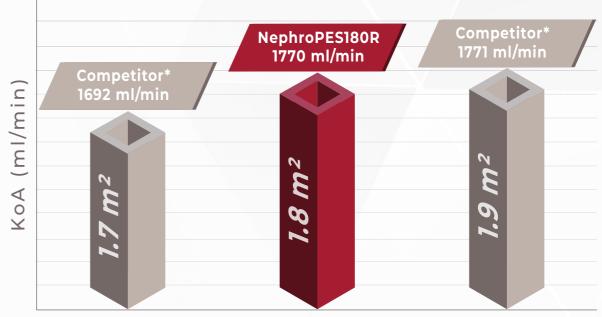
QF: Ultrafiltration flow

QD: Dialysate flow

*Specifications and performance data at QB = 200/300 ml/min, QD = 500 ml/min, QF = 0 ml/min, T: 37 °C. Performance data was measured in vitro according to standards BS EN ISO 8637-1:2020. Clearance data may vary depending on testing conditions.

** Sieving coefficient is an absolute value that is related to the fiber itself.

REMOVAL OF UREMIC TOXINS IN HIGH FLUX DIALYZERS



Dialyzer Sizes, High Flux, Gamma Sterilization Membrane: Polyethersulfone | Values based on QB = 300ml/min, QD = 500ml/min, QF: 0ml/min. Competitor: QB = 300ml/min, QD = 500ml/min, QF: 10ml/min. *Based on competing dialyzer in industry

NEPHROFILTER CHARACTERISTICS

	Designed to augment dialysate distributi resulting in an elevation of clearance val	
	Engineered to achieve uniformity in pore distribution reducing water and protein loss	
	mbrane of (35 µm), .0 m² for high flux	/
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	ohro PESIBOR IN	9 (r

Pores width and uniform spatial distribution yields a steeper sieving curve and a high degree of selective solute removal

NephroCan's own polyethersulfone premium hollow fibers

Sterilization available in Gamma Irradiation (R). Ethylene Oxide Gas (EO), and Steam (S) may be provided based on request

LOW FLUX POLYETHERSULFONE **SPECIFICATIONS**

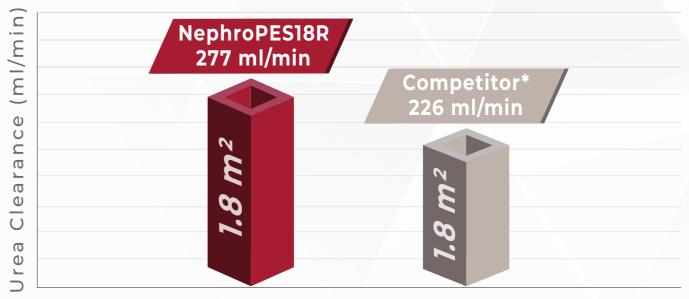
Polyethersulfone Low Flux Hollow Fiber Hemodialyzer Specifications*							
Sterilized with Gamma Irradiation (R)							
Blood Flow Rate (mL/min)			Nephro PES10R	Nephro PES13R	Nephro PES16R	Nephro PES18R	Nephro PES20R
	Urea	Q _B = 200	174	185	190	197	198
		Q _B = 300	220	237	251	277	283
	Creatinine	Q _B = 200	158	172	180	184	190
		Q _B = 300	190	212	230	258	267
Clearances	Dhosphata	Q _B = 200	137	152	161	171	178
(mL/min)	Phosphate	Q _B = 300	157	180	192	212	228
	Vitamin B ₁₂	Q _B = 200	98	117	126	134	141
		Q _B = 300	107	131	141	152	159
	Inulin	Q _B = 200	-	-	-	-	-
		Q _B = 300	-	-	-	-	-
Surface Area (m ²)			1.0	1.3	1.6	1.8	2.0
Blood Priming Volume (mL)			59	71	90	112	114
Ultrafiltration Coefficient (mL/mmHg.hr)			8.8	10.9	12.7	17.9	20.7
KoA (mL/ min)			556	689	836	1320	1530
Membrane							
Membrane Material			Dry Non-Cellulosic Membrane Low Flux Polyethersulfone				
Wall Thickness (µm)			30 ± 5				
Inner Diameter (µm)			200 ± 15				
Maximum TMP (mmHg)			500				

QB: Blood flow

QF: Ultrafiltration flow

QD: Dialysate flow

*Specifications and performance data at QB = 200/300 ml/min, QD = 500 ml/min, QF = 0 ml/min, T: 37 °C. Performance data was measured in vitro according to standards BS EN ISO 8637-1:2020. Clearance data may vary depending on testing conditions.



Dialyzer Sizes, Low Flux, Gamma Sterilization

Membrane: Polyethersulfone | Values based on QB = 300ml/min, QD = 500ml/min, QF: 0ml/min. Competitor: QB = 300ml/min, QD = 500ml/min, QF: Not Reported. *Average of competing dialyzers in industry

NEPHROFILTER CHARACTERISTICS

	Designed to optimize dialysate distribution, resulting in an increase of clearance values
	Engineered to achieve uniformity in pore distribution reducing water and protein loss
	nbrane of (35 μm), 0 m²surface area for low flux
Profile of membra bioincompabilities	nes built to reduce
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REMOVAL OF UREMIC TOXINS IN LOW FLUX DIALYZERS



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