

RETHINKING HEMODIALYSIS

POLYETHERSULFONE DIALYZER
BROCHURE



2024

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NephroCan provides a fully 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.

CANADIAN LEADER IN HEMODIALYSIS



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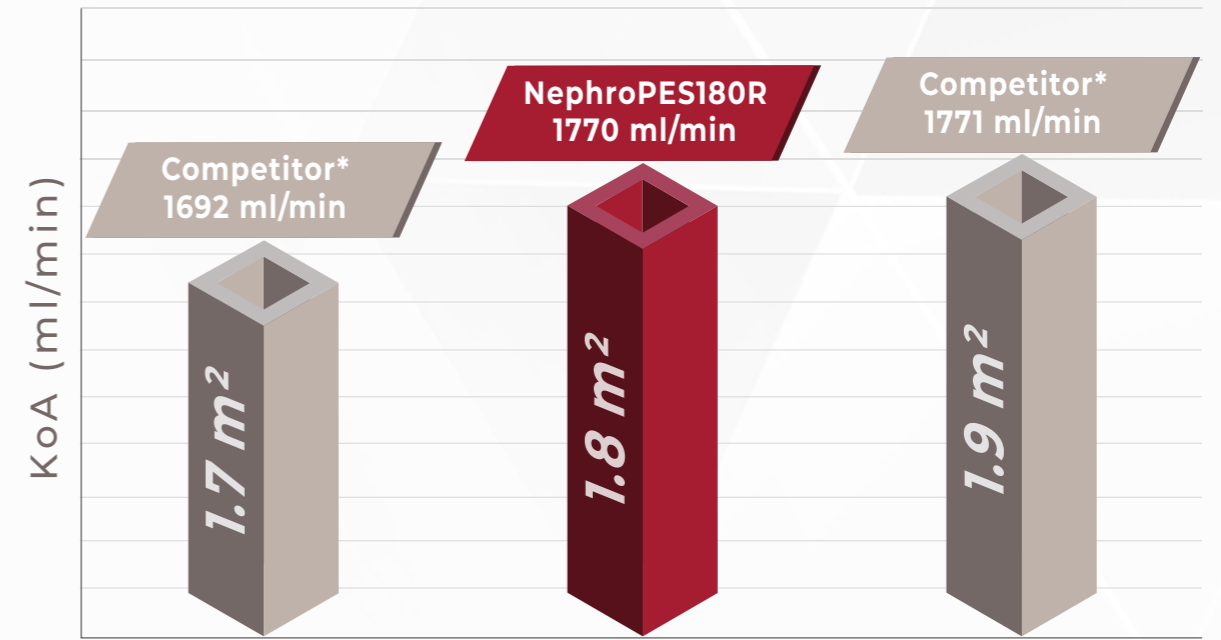
HIGH FLUX POLYETHERSULFONE SPECIFICATIONS

Polyethersulfone High Flux Hollow Fiber Hemodialyzer Specifications*						
Sterilized with Gamma Irradiation (R)						
Clearances (mL/min)		Blood Flow Rate (mL/min)	NephroPES130R	NephroPES160R	NephroPES180R	NephroPES200R
			Urea	QB= 200	197	196
Creatinine	QB= 300	270	285	288	291	
	QB= 200	192	193	197	197	
Phosphate	QB= 300	255	269	279	286	
	QB= 200	181	189	194	196	
Vitamin B ₁₂	QB= 300	236	254	262	279	
	QB= 200	147	160	165	172	
Inulin	QB= 300	168	186	194	211	
	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.

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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

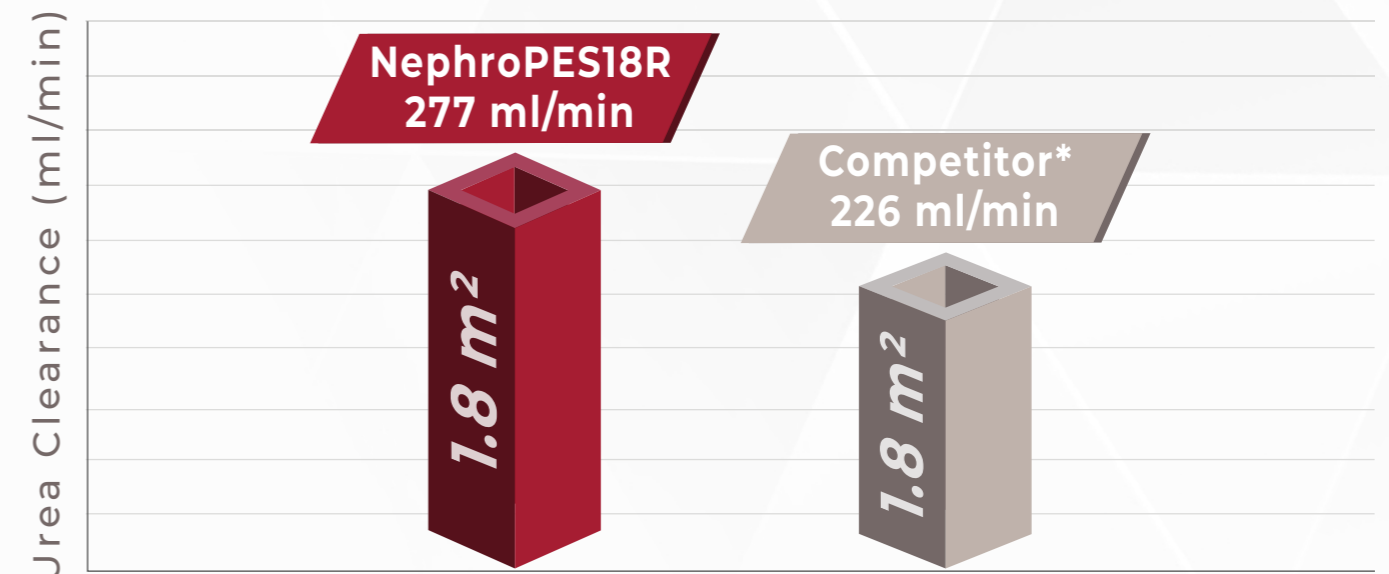


LOW FLUX POLYETHERSULFONE SPECIFICATIONS

Polyethersulfone Low Flux Hollow Fiber Hemodialyzer Specifications*							
Sterilized with Gamma Irradiation (R)							
Clearances (mL/min)		Blood Flow Rate (mL/min)	Nephro PES10R	Nephro PES13R	Nephro PES16R	Nephro PES18R	Nephro PES20R
			Urea	Q _B = 200	174	185	190
Creatinine	Q _B = 300	220	237	251	277	283	
	Q _B = 200	158	172	180	184	190	
Phosphate	Q _B = 300	190	212	230	258	267	
	Q _B = 200	137	152	161	171	178	
Vitamin B ₁₂	Q _B = 300	157	180	192	212	228	
	Q _B = 200	98	117	126	134	141	
Inulin	Q _B = 300	107	131	141	152	159	
	Q _B = 200	-	-	-	-	-	
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					

Q_B: Blood flow
 Q_F: Ultrafiltration flow
 Q_D: Dialysate flow
 *Specifications and performance data at Q_B = 200/300 ml/min, Q_D = 500 ml/min, Q_F = 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.

REMOVAL OF UREMIC TOXINS IN LOW FLUX DIALYZERS



Dialyzer Sizes, Low Flux, Gamma Sterilization

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

NEPHROFILTER CHARACTERISTICS



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