Leoceed™

Light

Ecological

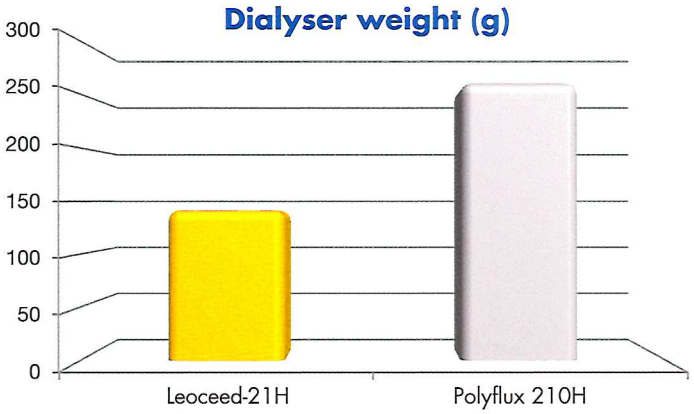
Optimal

Asahi Polysulfone Haemodialyser

AsahiKASEI

Leoceed™

Light



Source: in-house data

Due to a new production technology and an innovative housing design, Leoceed is considerably lighter than many other dialysers. The low weight makes it easy to handle for medical staff.

Ecological

Leoceed – CO_2 reduction equivalent to 3.8 beech trees per year.

Using Leoceed for one patient for one year instead of a conventional product can save up to 41 kg CO_2 emissions during incineration. This CO_2 reduction is equal to the CO_2 absorption by 3.8 beech trees.[1]
Also, thanks to Leoceed's low weight, transportation emissions are significantly reduced.

[1]Beech tree absorption was calculated by the Forestry and Forest Products Research Institute Japan Basis: Amount of CO_2 absorption is 11 kg/year (Beech tree age: 100 years, height: 20-30 m, diameter 20-30 cm)

Optimal

Leoceed was designed to achieve optimal performance by combining a new housing design with the proven Asahi Polysulfone membrane.

Outstanding biocompatibility

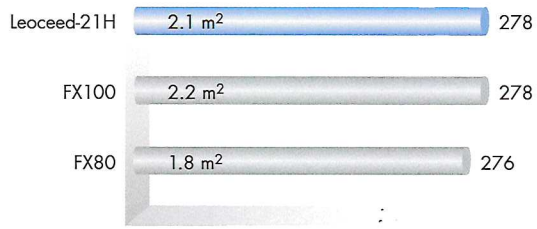
The hydrophilic gel layer formed on the inner surface of the membrane helps to alleviate the blood-membrane interaction. Futhermore, the membrane has a low backfiltration of endotoxins reducing the risk of inflammatory responses.

Excellent Clearance

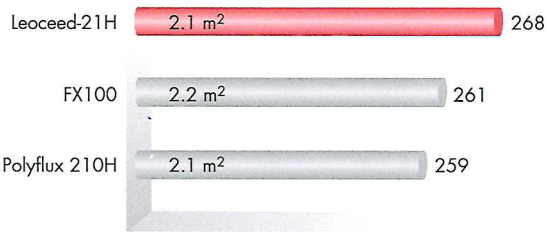
With regard to small molecule clearance, Leoceed demonstrates the highest level of performance compared to other synthetic membrane dialysers.

The superior membrane technology and the original housing design contribute to the exceptional clearance performance.

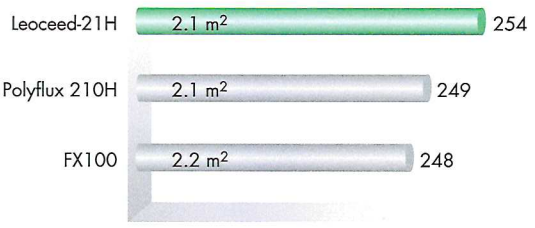
Urea



Creatinine



Phosphate



In-vitro test conditions:
Qb: 300 ml/min, Qd: 500 ml/min, Qf: 0ml/min
All data are as per the manufacturers' specifications for in-vitro procedures.
Source: Manufacturers' brochures

Innovative Housing Design

The newly developed housing design features a lateral blood port. This makes Leoceed easy to handle when connecting the blood line to the dialyser.

In addition, the new inlet port design ensures a homogenous blood circulation inside the arterial header and throughout the fiber bundle.

Leoceed™

LEOceed Dialyser, Light, Ecological design
with the highest regard for Optimal performance.

Performance (in vitro)

High Flux

	Leoceed-16H			Leoceed-18H			Leoceed-21H		
Blood Flow (mL/min)	200	300	400	200	300	400	200	300	400
Clearances (mL/min) [1]									
Urea	196	271	317	198	274	322	199	278	328
Creatinine	192	254	297	195	260	304	197	268	311
Phosphate	186	241	272	189	247	283	193	254	296
Vitamin B_{12}	146	173	191	155	185	204	166	200	221
KoA (Urea) (mL/min) [2]	1167			1239			1351		
KUF (mL/hr/mmHg (mL/hr/kPa)) [3]	68 (508)			76 (568)			88 (658)		
Effective Surface Area (m^2)	1,6			1,8			2,1		
Sieving Coefficient - β_2-MG [4]	0,8								
Sieving Coefficient - Albumin [4]	< 0.001								

Low Flux

	Leoceed-16N			Leoceed-18N			Leoceed-21N		
Blood Flow (mL/min)	200	300	400	200	300	400	200	300	400
Clearances (mL/min) [1]									
Urea	192	256	292	194	260	298	195	263	303
Creatinine	185	238	270	188	245	278	192	253	287
Phosphate	162	196	219	166	202	227	170	209	236
Vitamin B_{12}	110	120	131	114	126	138	117	133	145
KoA (Urea) (mL/min) [2]	902			961			1010		
KUF (mL/hr/mmHg (mL/hr/kPa)) [3]	14 (106)			15 (114)			17 (126)		
Effective Surface Area (m^2)	1,6			1,8			2,1		

Conditions: [1] Clearances: Qd=500mL/min, Qf=0mL/min [2] KoA: Qb=300mL/min, Qd=500mL/min, Qf=0mL/min
[3] KUF: bovine blood, TP=60±5g/L, Hct=32±2%, Qb=300=mL/min [4] Sieving Coefficient: bovine plasma, TP=60±5g/L; ISO 8637:2010

Specifications

	Leoceed-16H/N	Leoceed-18H/N	Leoceed-21H/N
Membrane	Asahi Polysulfone		
Internal Diameter of Hollow Fiber (µm)	185		
Wall Thickness of Hollow Fiber (µm)	35		
Priming Volume (mL)	86	96	108
Maximum TMP (mmHg (kPa))	600 (80)		
Maximum Blood Flow (mL/min)	500		
Maximum Dialysate Flow (mL/min)	800		
Dimensions (mm [L] x mm [D])	240 x 41	270 x 41	300 x 41
Weight (g)	130	140	150
Sterilization	Gamma-Ray		

Notes: High permeability devices. Use only with ultrafiltration controlling equipment. ISO 8637:2010

AsahiKASEI

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