



**FRESENIUS
MEDICAL CARE**



Acute Therapy Systems

plasmaFlux P1 *dry* / P2 *dry*
Therapeutic Plasma Exchange

Therapeutic Plasma Exchange (TPE)

TPE: removal of pathogenic substances

Therapeutic Plasma Exchange can be provided to patients as standalone treatment or combined with other therapeutic measures, e.g. disease-related medication.^{1,2w}

– Autoimmune diseases

(e.g. Goodpasture's syndrome, Myasthenia gravis, Guillain-Barré syndrome), in which the rapid removal of disease-causing auto-antibodies is required

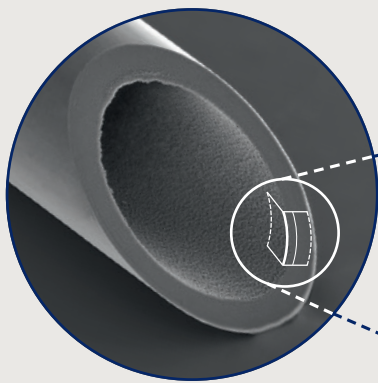
– Non-immunological diseases

(e.g. Hyperviscosity syndrome in monoclonal gammopathies) for the removal of metabolic products, endogenous and exogenous toxins

– Other diseases

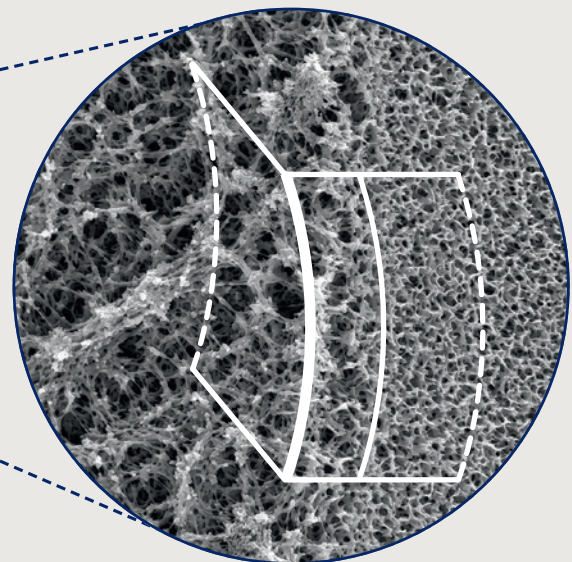
(e.g. thrombotic thrombocytopenic purpura) in which the substitution solution has to compensate for specific plasma constituents (e.g. ADAMTS13, clotting factors)

Two-layer structure of P1dry/P2dry plasmafilter



Left:

Electron micrograph of P1dry/P2dry capillary with view into hollow fibre (100x magnification)



Right:

Magnified to show inner surface and cross-section of two layer membrane (2000x magnification)

Inner surface

Cross-section –
two layer membrane

The **plasmaFlux** *dry* product range

plasmaFlux *dry* can be used in cases in which plasma separation is indicated, e.g. autoimmune diseases, metabolic diseases, endogenous and exogenous intoxications.³

plasmaFlux is used for the separation of plasma and blood cells through the Plasmasulfone membrane:

- **plasmaFlux** *dry* is a non pre-filled plasmafilter for easy set-up
- The surface layer inside of the Plasmasulfone capillary is surrounded and stabilised by a second homogeneous, fine-pored layer
- The Plasmasulfone membrane enables substances to pass, including plasma proteins such as immunoglobulins (e.g. IgM of 940 kDa) and lipoproteins (e.g. LDL of 2500 kDa)

plasmaFlux *dry*: performance data³

Sieving coefficient*	
Albumin	≥ 0.90
IgM	≥ 0.90
LDL	≥ 0.90



plasmaFlux *dry*: technical data³

	plasmaFlux P1 <i>dry</i>	plasmaFlux P2 <i>dry</i>
Effective surface area	0.3 m ²	0.6 m ²
Recommended blood flow range	40–150 mL/min	80–250 mL/min
Filtrate flow (max)	30 % of effective blood flow	30 % of effective blood flow
Priming volume (blood / filtrate)	35 mL/90 mL	67 mL/160 mL
Article number	5008021	5008031

plasmaFlux <i>dry</i>	
Wall thickness/inner lumen	65/330 µm
Membrane material	Fresenius Polysulfone
Sterilization method	INLINE steam
Housing/potting material	Polycarbonate/polyurethane
Blood / filtrate connectors	According to ISO 8637-3

**In vitro data are likely to differ from in vivo data due to the patient's blood composition and clinical settings*

References

- 1 Schwartz J et al. Guidelines on the Use of Therapeutic Apheresis in Clinical Practice—Evidence-Based Approach from the Writing Committee of the American Society for Apheresis: The Seventh Special Issue. *J Clin Apheresis*. 2016;31:149–338
- 2 Schutt RC et al. The role of therapeutic plasma exchange in poisonings and intoxications. *Semin Dial*. 2012;25(2):201-106
- 3 Instruction for Use, plasmaFlux P1/P2 *dry*, valid from 07/2018