LIQUID BAG FILTERS

PCP Bag Filter

Three-layer depth filter bag with a natural cotton core between two polypropylene outer layers. Made to process requirements for 0.5–0.8 µm particle retention and free oil absorption in chemical-containing, high-viscosity and oily process liquids.



CONSTRUCTION	PRECISION	MAX. TEMPERATURE	CHANGE-OUT ΔP
3 layers	**0.5–0.8 µm**	**90 °C**	**2–2.5 bar**
PP · cotton · PP	In dense liquids	Continuous operation	Recommended change-out pressure

Technical specifications

Construction	Three-layer lamination: PP outer · natural cotton core · PP inner
Outer and inner layers	Polypropylene; chemical resistance, structural strength, fibre migration protection
Middle layer	Natural cotton; high dirt-holding capacity and lipophilic oil absorption
Micron rating	0.5–0.8 µm (in dense liquids; varies with process conditions)
Filtration type	Depth filtration
Max. operating temperature	90 °C
Chemical resistance	PP layers chemically resistant · limited with strong acids because of the cotton core
Recommended change-out ΔP	2–2.5 bar
Oil retention	Non-emulsified free oil; not effective with emulsified oil
Structural stiffness	PP outer layers keep the shape stable at high pressure and viscosity
Silicone content	Silicone-free construction
Production type	Made to order for each process (not a stock item)

Layer structure

LAYER	MATERIAL	FUNCTION
Outer layer (inlet surface)	Polypropylene (PP)	Retains large particles as a pre-stage; provides chemical resistance and structural strength.
Middle layer	Natural cotton	Retains fine particles down to 0.5 µm in depth in dense liquids; absorbs free oil.
Inner layer (outlet surface)	Polypropylene (PP)	Stops fibres that may come loose from the cotton from entering the clean liquid; provides structural integrity.

SCS, SPS and PCP comparison

TYPE	OUTER LAYER	CORE	CHEMICAL RESISTANCE	OIL ABSORPTION
SCS	Spunbond	Natural cotton	Limited	Yes
SPS	Spunbond	Polypropylene	High	No
PCP	Polypropylene	Natural cotton	Chemical resistance (limited with strong acids)	Yes

Information needed for custom production

Liquid and viscosity
Type of process liquid and its viscosity.

Temperature and chemistry
Operating temperature and chemical content of the liquid.

Precision
Required filtration precision and contaminant profile.

Use and maintenance

- Make sure the process temperature does not exceed 90 °C.
- The cotton core is limited in liquids containing strong acids; confirm compatibility before ordering.
- Do not expect oil absorption in processes containing emulsified oil; only free oil is retained.
- Replace the bag when the differential pressure reaches 2–2.5 bar.
- As the product is made to process requirements, share your process data with our technical team before ordering.

Values in this data sheet are typical and for information only. Product selection should be made with our engineers based on process fluid, temperature, pressure and flow conditions. Proses T.İ.M. reserves the right to change product specifications without prior notice.

PROSES T.İ.M.®
Proses Ticaret İmalat Mühendislik Ltd. Şti.
Musa Gündüz Cad. No:14 Taşköprü, Çiftlikköy / Yalova, Türkiye

+90 226 353 35 70 · Head office
sales@prosestim.com
prosestim.com/en

Product page