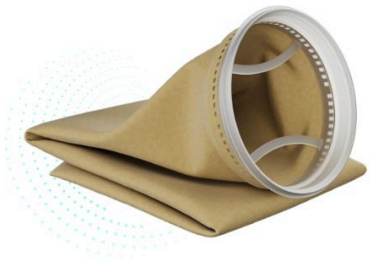
DUST BAG FILTERS

Acrylic Bag Filter

Medium-temperature dust filter made from homopolymer acrylic (polyacrylonitrile) fibre by the needle-punched felt method. With high hydrolysis resistance, it is used for humid, acidic flue gases in the 100–130 °C range, in dust collection processes where polyester hydrolyses.



WEIGHT	CONTINUOUS TEMPERATURE	PEAK TEMPERATURE	HYDROLYSIS
500 g/m²	**130 °C**	**150 °C**	**High**
Thickness 2.0 mm	Dry and humid gas	Short-term peak	Humid and acidic gases

Technical specifications

Fibre type	Homopolymer acrylic (polyacrylonitrile, PAN)
Fabric structure	Needle-punched felt
Weight	500 g/m²
Thickness	2.0 mm
Air permeability	150–200 L/dm²·min @ 200 Pa
Continuous operating temperature	130 °C (dry / humid)
Peak (surge) temperature	150 °C
Hydrolysis resistance	High; stable through humidity and condensation cycles
Chemical resistance	Mineral and organic acids: good · Strong alkalis: moderate
Filtration direction	Outside-in · surface and depth filtration
Surface treatments	Calendering · Singeing · Water and oil repellent (PTFE coating) · ePTFE membrane
Collar types	Snap band · Clamped · Flanged · Corded
Cleaning system	Pulse-jet · Reverse air · Shaker
Option	Antistatic (conductive fibre integration)
Custom production	Non-standard diameter, length and surface treatment

Temperature and chemical resistance

CONDITION	VALUE
Continuous operation	130 °C
Peak (surge)	150 °C
Mineral acids	Good
Organic acids	Good
Strong alkalis	Moderate
Hydrolysis / humidity	High resistance
Acid dew point	Do not operate below it

Above 150 °C and with strong alkalis, consider Nomex, PPS or PTFE.

Collar options

Snap band
Seats in the tube sheet with a steel strip band.

Clamped
Tightened onto the pipe collar with a stainless clamp.

Flanged
Clamped by a venturi or top hold-down flange.

Corded / beaded
Held in the seat by a corded seam.

Surface treatment options

SURFACE TREATMENT	PROPERTY	RECOMMENDED APPLICATION
Calendering	Smooths the surface, easy dust release	General dry dust applications
Singeing	Smooth surface; less dust re-entrained into the flow	Cement and lime plants
Water and oil repellent (PTFE)	Reduces adhesion in humid and oily gases	Spray dryers, waste incineration
ePTFE membrane	Surface filtration, PM2.5 retention	Strict emission limits

Use and maintenance

- Flue gas must not exceed 130 °C continuously or 150 °C at peak; raise an alarm at critical levels.
- Raise the temperature gradually at start-up; do not fall below the acid dew point.
- Check the cage when changing bags; do not use bent, damaged or rusted cages.
- Store bags in moisture-proof packaging in a dry place, without placing loads on them.
- In processes with a risk of explosion or fire, use the antistatic version with conductive fibres.

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.

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