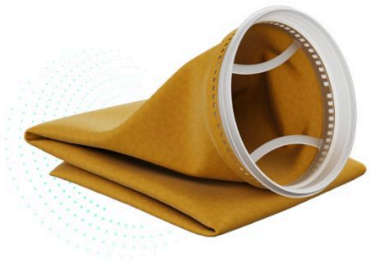
DUST BAG FILTERS

Polyimide P84 Bag Filter

High-temperature dust filter made from trilobal polyimide (P84) fibre by the needle-punched felt method. It operates continuously up to 240 °C, holds fine dust at the surface and is used in cement rotary kilns, lime kilns, waste incineration and asphalt plants.



CONTINUOUS TEMPERATURE	WEIGHT	PH RANGE	EMISSIONS
240 °C	**500 g/m²**	**2–12**	**≤ 5 mg/Nm³**
Peak 260 °C · dry	Thickness 2.55 mm	Acid and alkali resistance	With ePTFE membrane

Technical specifications

Fibre type	Polyimide (P84), trilobal cross-section
Fabric structure	Needle-punched felt
Weight	500 g/m²
Thickness	2.55 mm
Air permeability	190 L/dm²·min @ 200 Pa
Continuous operating temperature	240 °C (dry)
Peak (surge) temperature	260 °C (dry)
Chemical resistance	Acids and alkalis pH 2–12 · PTFE recommended for pH > 12 · not suitable for HF
Hydrolysis resistance	Moderate; PPS or PTFE for high humidity and condensation
Flame resistance	Inherently non-flammable, does not melt
Surface treatments	Calendering · Singeing · Water and oil repellent · PTFE coating · ePTFE membrane · Antistatic
Emissions	≤ 5 mg/Nm³ (with ePTFE membrane)
Collar types	Snap ring · Snap band · Flanged · Plain top
Cleaning system	Pulse-jet · Reverse air · Shaker
Service life	> 4,000 hours

Temperature and chemical resistance

CONDITION	VALUE
Continuous operation	240 °C (dry)
Peak (surge)	260 °C (dry)
Acids and alkalis	pH 2–12
Strong alkali (pH > 12)	PTFE recommended
Hydrofluoric acid (HF)	Not suitable
Hydrolysis / humidity	Moderate resistance
Acid dew point	Stay above with a safe margin

Above 260 °C peak, consider glass fibre with ePTFE membrane.

Collar options

Snap ring
Galvanised or stainless steel ring; leak-tight in the tube sheet.

Snap band
Flexible steel band clicks into its seat.

Flanged
Felt flange compressed between tube sheet and cage.

Plain top
No ring; for clamps or special clamping devices.

Surface treatment options

SURFACE TREATMENT	PROPERTY	RECOMMENDED APPLICATION
Calendering	Smooths the surface, easy dust release	General industry, cement
Singeing	Smooth surface; less dust re-entrainment	Lime and gypsum plants
Water and oil repellent	Less particle adhesion in humid, oily gases	Waste incineration, chemical processes
ePTFE membrane	Surface filtration, ≤ 5 mg/Nm³ emissions	Strict emission limits

Use and maintenance

- Flue gas must not exceed 240 °C continuous or 260 °C peak; monitor temperature.
- In humid processes, assess hydrolysis risk before start-up; keep gas above the acid dew point.
- Store bags in moisture-proof packaging; condition damp bags with dry, hot air.
- Raise the temperature gradually at first start-up; avoid thermal shock.
- Bag size must match the cage exactly; do not use deformed or rusted cages.
- Do not use P84 in applications containing HF.

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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