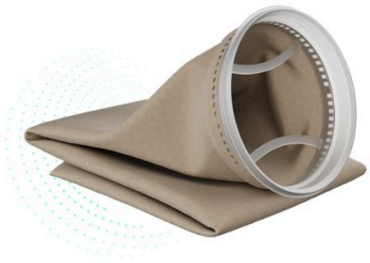
DUST BAG FILTERS

PPS (Ryton) Bag Filter

Dust filter made from polyphenylene sulphide (PPS) fibre by the needle-punched felt method at 540 g/m². With high resistance to acid gases and hydrolysis, it is used for humid, SO_2-containing flue gases in thermal power plants, waste incineration, chemical plants and coal-fired boilers.



CONTINUOUS TEMPERATURE	WEIGHT	HYDROLYSIS	EMISSIONS
190 °C	**540 g/m²**	**High**	**≤ 5 mg/Nm³**
Peak 220 °C · dry	Needle-punched felt	Humidity and dew point transitions	With ePTFE membrane

Technical specifications

Fibre type	PPS (polyphenylene sulphide / Ryton)
Fabric structure	Needle-punched felt
Weight	540 g/m²
Continuous operating temperature	190 °C (dry)
Peak (surge) temperature	220 °C (dry)
Melting point	285 °C
Chemical resistance	High resistance to acids and alkalis · stable with SO_2 and HCl-containing gases
Hydrolysis resistance	High; stable through humidity and dew point transitions
Oxidation limit	Above 165 °C, free O_2 must not exceed 8–10% · watch NOx
Flame resistance	Self-extinguishing · LOI 34
Surface treatments	Singeing · Calendering / sintering · Water and oil repellent · PTFE coating (impregnation) · ePTFE membrane · Antistatic
Emissions	≤ 5 mg/Nm³ (with ePTFE membrane)
Cleaning system	Pulse-jet · Reverse air · Shaker
Custom production	Non-standard diameter, length and surface treatment

Temperature and chemical resistance

CONDITION	VALUE
Continuous operation	190 °C (dry)
Peak (surge)	220 °C (dry)
Melting point	285 °C
Acids (SO_2, HCl)	High resistance
Alkalis	High resistance
Hydrolysis / humidity	High resistance
Oxidation (O_2, NOx)	Above 165 °C O_2 ≤ 8–10%

Media comparison

Versus polyester and acrylic

Does not hydrolyse in humid, SO_2-containing gases; dimensionally stable.

Versus Nomex

Wider chemical and hydrolysis resistance; lower limit (190 °C vs 204 °C).

Versus PTFE

PTFE (240 °C) for strongly oxidising gases and the full pH range.

Surface treatment options

SURFACE TREATMENT	PROPERTY	RECOMMENDED APPLICATION
Singeing	Smooths the surface, improves dust release	General high-temperature use
Calendering	Smooths the surface; pulse-jet compatible	Coal boilers, cement plants
Water and oil repellent	Protects the surface with moisture and sticky dust	Chemical processes, wet flue gas
PTFE coating	Extra protection against acid condensation	SO_2-intensive power plants
ePTFE membrane	Surface filtration, ≤ 5 mg/Nm³ emissions	Strict emission limits
Antistatic	Helps dissipate static charges	Combustible dust applications

Use and maintenance

- Flue gas must not exceed 190 °C continuous or 220 °C peak; monitor temperature.
- Above 165 °C, keep free O_2 below 8–10% and monitor the NOx concentration.
- Choose PTFE coating for heavy acid condensation and ePTFE membrane for strict emission limits.
- Keep the pulse-jet cleaning pressure within the recommended range.
- Check the cage when changing bags; do not use deformed or rusted cages.

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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