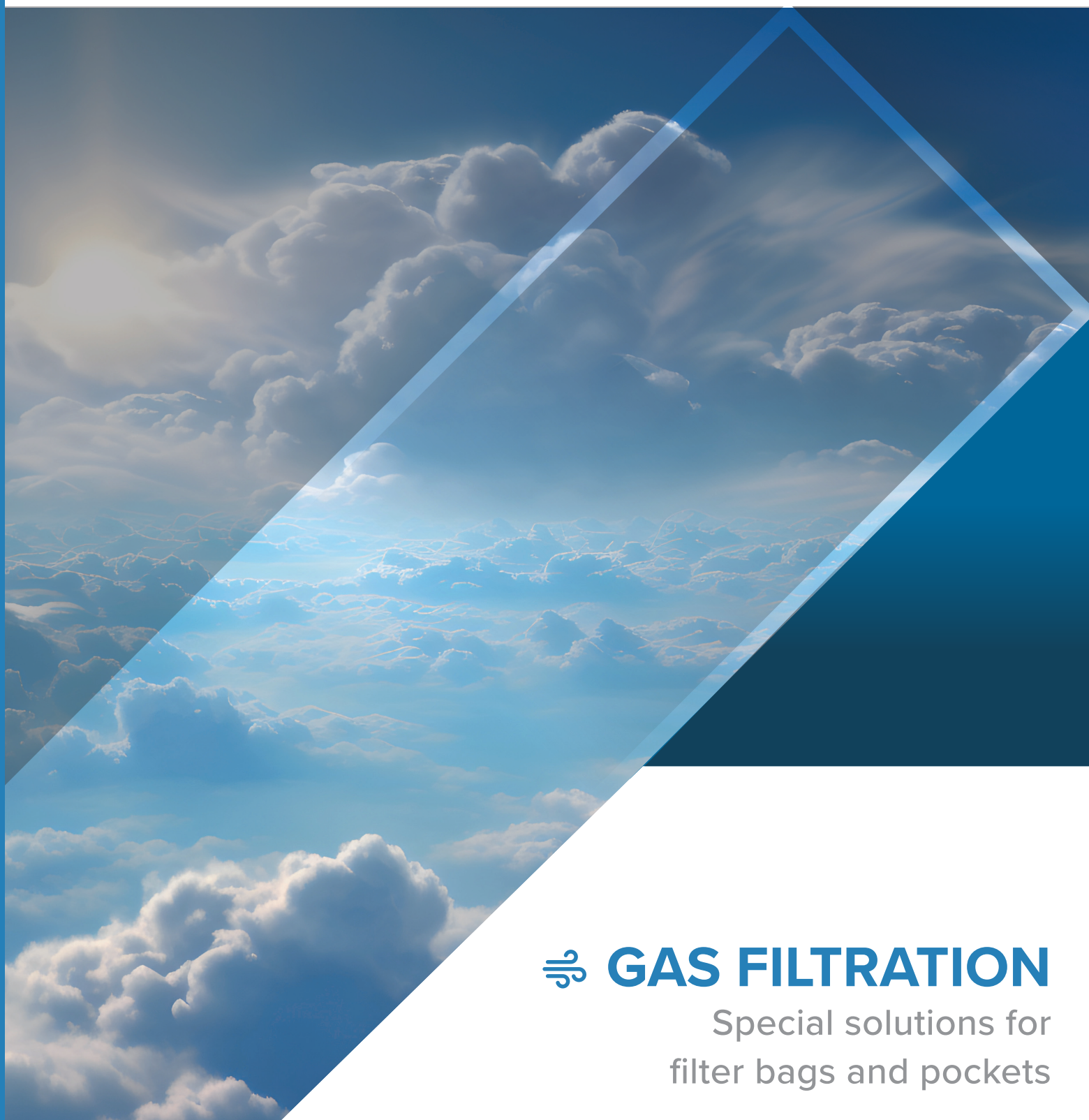
testori®
TESTORI GROUP



GAS FILTRATION

Special solutions for
filter bags and pockets

INTRO

Wherever combustion and fine-dust gases require strict emission control or high yields of solid product powders must be captured, Testori offers a full range of **special needlefelt and filter bag products**, based on decades of production and field experiences.

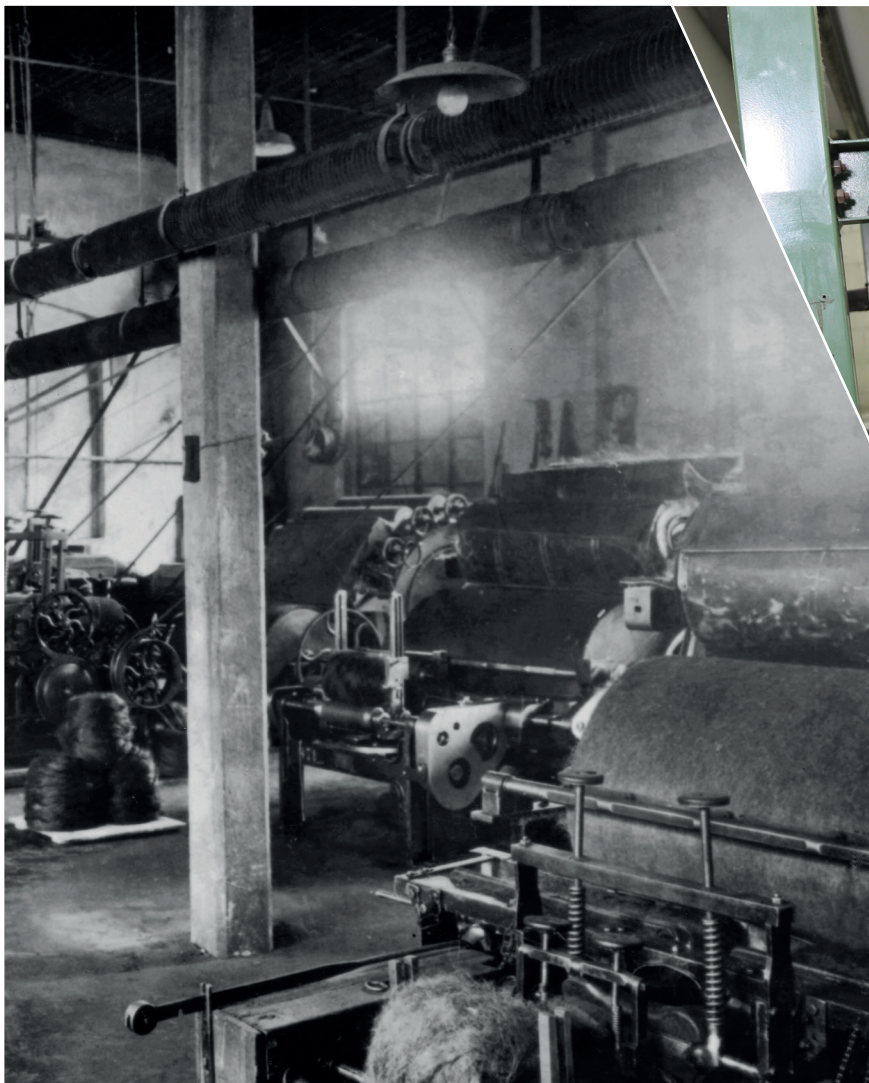
The selection of the **appropriate fiber**, chosen from a broad range of **temperature and chemical resistance options**, is closely linked to the specific application and process parameters.

The unique demands of certain applications may require additional attention to the construction of the selected needle felt and/or filter bag. This can involve **customized fiber blends**, fine micro, and structured fibers, specifically designed supporting scrims, and specialized treatments.

Testori provides high-quality products for industrial gas and product filtration across all application areas, offering both semi-finished rolled goods and ready-made filter bags and pockets.

The full customer service provided through Testori teams includes:

- **consultancy** of preliminary engineering projects
- **material selection** recommendations



Testori is an industrial group active for over 120 years in the technical textile field; more specific, in industrial filtration for production and environmental protection processes. In the past, durable and high-quality fabrics were obtained by traditional techniques, like wool matting. Today, Testori capabilities have expanded to include advanced heat setting and unique surface finishing, allowing the customization of filter media characteristics according to specific applications and diverse needs of our clients.

- customer **trainings**
- **installation, supervision**, and **start-up support**
- **monitoring of used filter material conditions** during service life, as well as troubleshooting and optimization of filter- and life-time performance.

Our vertically integrated production and high level of product customization lend Testori all necessary capabilities to deliver reliable and safe solutions. Testori cooperates closely with all customers, including bag manufacturers, baghouse OEMs, and end-users.

Table of **CONTENTS**

- **Fibers** p. 5
- **Fibres & Needlefelts:** p. 6
- **Special Felts & Treatments:** p. 8
- **Bags & cages:** p. 10
- **Applications & Services:** p. 11



FIBERS

Fibers are the base material of the final filter media to manufacture **filter bags and pockets**.

The nature of each single application, with its inherent gas and dust composition, as well as targeted **emission limitations,** give the framework for an appropriate fiber selection. The available fiber portfolio for industrial filtration provides a wide range of temperature and chemical resistances as well as **specific filtration properties** due to their physical, fineness and structural properties. The optimal choice is determined by extensive experience and a thorough understanding of the process, closely tied to the specific application and operating conditions.

	Fibers	Main applications
PP	Polypropylene	Industrial exhaust systems, Galvanic treatments
PES	Polyethylene terephthalate	Food, Industrial Vacuum, Cement, Ceramics, Pharmaceutical, Chemical, Wood, Steelworks, Mining, Non-ferrous metal treatments
PAN	Polyacrylonitrile	Food, Cement, Power station, Waste to Energy, Industrial exhaust systems, Mining, Non-ferrous metal treatments
PPS	Polyphenylene sulphide	Cement, Power station, Waste to Energy, Mining, Non-ferrous metal treatments
PMIA	Meta-aramid	Cement, Ceramics, Asphalts
PIC-P84	Polyimide	Cement, Power station, Waste to energy, Steel, Glass
PTFE	Polytetra fluorethylene	Cement, Pharmaceutical, Power station, Waste to energy, Steel, Glass
Woven Glass fiber with Membrane	Silica	Cement, Power station, Waste to energy

NEEDLEFELTS

While the fibers determine the core physical and chemical properties, the **needle felts** are **designed and constructed with different options** that define the characteristics of the final filter media. Physical durability is merged with textile flexibility and fine-tuned filtration properties to safely meet harsh demands of process requirements and lowest emission values.



SPECIAL FELTS

Individual application conditions require suitable, **tailored needlefelt constructions**. Thanks to our long and consolidated experience in the industrial field, Testori offers a wide and distinctive range of special felts, with and without scrim, specifically developed to meet the needs of each customer and application.

	Description	Fibers	Advantages
MICROFIBERS	• Use of microfibres (up to 0,9 dtex) on the dust side; • Alternatively, use of multilobal sectioned shape fibres on the dust side	PES PAN PPS P84	• Controlled low emissions; • Better efficiency; • Increased bag lifetime
DURAtes	• Use of microfibers; • Increased compactness and needling uniformity	PES	• Controlled low emissions; • Increased bag lifetime; • Energy savings
ANTISTATIC FELTS	• Use of epitropic fibres blended with standard ones in the batt to improve conductivity of the finished felt • For better performances use of stainless steel fibres in the scrim	PP PES PAN PPS PMIA	• Surface resistivity below 104 Ohm
SSB	• Stratified structure with pre-oxidized polymer fibers mixed with finer fibers and standard fibers (on the dust side of the felt)	PES	• Increased resistance to sparks or other incandescent particles; • Longer sleeve durability
BLEND	• Use of a special blend of fibers optimized for asphalt production plants	ASPHALT BLEND	• Reduced cost of ownership
COLORfelt	• New eco-friendly felt for all industries	Nomex 100%	• Sustainable; Optimal performance
MULTILAYERS	• Multilayer construction with microfiber cap on the outside	PPS-PI PAN-PI	• Greater control over emissions; • Better efficiency; • Longer sleeve Durability

SPECIAL TREATMENTS

The specificity of the application conditions may also require the application of **special treatments** to the filter media, which Testori offers in a wide choice.

In addition to the traditional processes of **heat setting**, **singeing**, and **glazing**, the felts can be impregnated with **special surface treatments** to become water and oil repellent, increasing filtration efficiency, or even providing **antibacterial properties** or **spark protection**.

	Description	Fibers	Advantages
ePTFE MEMBRANE	• Expanded PTFE membrane coating on the dust side	PES PAN PPS PMIA GLASS PTFE	• Controlled low emissions; • Better efficiency
KLEENTES	• Bath impregnation of the felt with fluorinated resins	PP PES PAN	• Water repellency; • Better cake release; • Suitable for sticky dust
RHYTES	• Fluorinated and PTFE resins for deep bath impregnation of the felt	PES PAN PPS PMIA P84®	• Water and oil repellency; • Better cake release; • Suitable for sticky dust
MANTES	• PTFE resins for deep bath impregnation of the felt	PAN PPS PMIA P84®	• Water and oil repellency; • Very good cake release; • Increased bag lifetime
NOVATES	• Polyurethane foam deep coating; • Suitable for continuous operating temperature up to 140°C	PES PAN PMIA	• Better filtration efficiency; • Very low emissions below 5mg/Nm
RESILTES	• Water based silicone finishing	PES	• Special impregnations resistant up to 180°C • Increased abrasion- and strength resistance
EKU	• Special deep bath finishing suitable for temperature up to 180°C • Protects the filter media by preventing the heat transfer from the spark to the fibre	PES PAN PPS	• Increased resistance to sparks or any incandescent particle • Increased bag lifetime

FILTER BAGS

Testori produces **filter bags and pockets for every application possible**. Our products are designed with a **high level of customization** according to the specific needs of our customers, ensuring effective solutions for all processes.

The meticulous design of all components, from tubes to top and bottom sections, whether sewn or **thermo-welded**, **or** even **tape-sealed**, if necessary, is crucial to ensuring optimal performance.

Our extensive experience and expertise allow us to ensure the quality and design of the filter bag, guaranteeing a **perfect fit** with the filter housing and cage. Thanks to the **vertical integrated production**, starting from fiber and yarn raw materials, we ensure **full traceability** through dedicated quality controls at every stage of the production process, guaranteeing that both the felt and finished product fully conform to specifications.



FILTER CAGES

To fulfil its customers' requirements, Testori offers a wide selection of high-quality **cages**. Testori cages are available in a large variety of shapes, materials, finishing treatments, joints, and collars.

Testori cages **can be supplied with Venturi, nozzles, and other accessories**, in accordance with the type of filter and the final application.



APPLICATIONS

Testori products serve and cover **all industrial filtration applications**:

- Cement & Lime Minerals
- Power Plants, Waste to Energy, Biomass Combustion
- Mining & Refinery
- Asphalt
- Steel Works & Foundries for Ferrous and Non-Ferrous Metals
- Alumina & Aluminum smelters
- Chemical Industry
- Food & Pharma
- Dedusting & Emission Control



SERVICES

The **R&D laboratory** is a strategic support aimed at all customers for every type of process and application. Our offer includes complete **laboratory analysis with detailed report:**

- Visual and dimensional analysis
- Evaluation of the dust content and residual permeability
- Evaluation of the degradation of the filter medium
- Drafting of a detailed report on the results of the analysis, with a focus on the conditions of the sleeve and an estimate of its expected residual life (before: in-depth study of the results).

An **Expert Assessment Service** is also provided to **improve the performance levels** of customer's filters **or** even to contribute **troubleshooting a specific problem**: our specialists can carry out on **site work** to observe, measure, analyze, and diagnose a solution when needed or to suitably train customer teams assigned to baghouse maintenance and supervision.

Testori offers **complete assistance during installation and assembly** all over the world, making use of specialized **maintenance teams** active at its subsidiaries:

- Tessitura Euganea
- TTL France
- Testori Iberia
- Testori Emirates



testori®
TESTORI GROUP

ITALY

FRANCE

U.A.E.

U.S.A.

SPAIN

SINGAPORE

LATAM

MALAYSIA

AUSTRALIA

Testori S.p.A.
Group Headquarters
Largo A. Testori, 5
20026 Novate Milanese (MI)
Italy

Tel. +39 02 3523 1
info@testori.it

www.testori.it | in