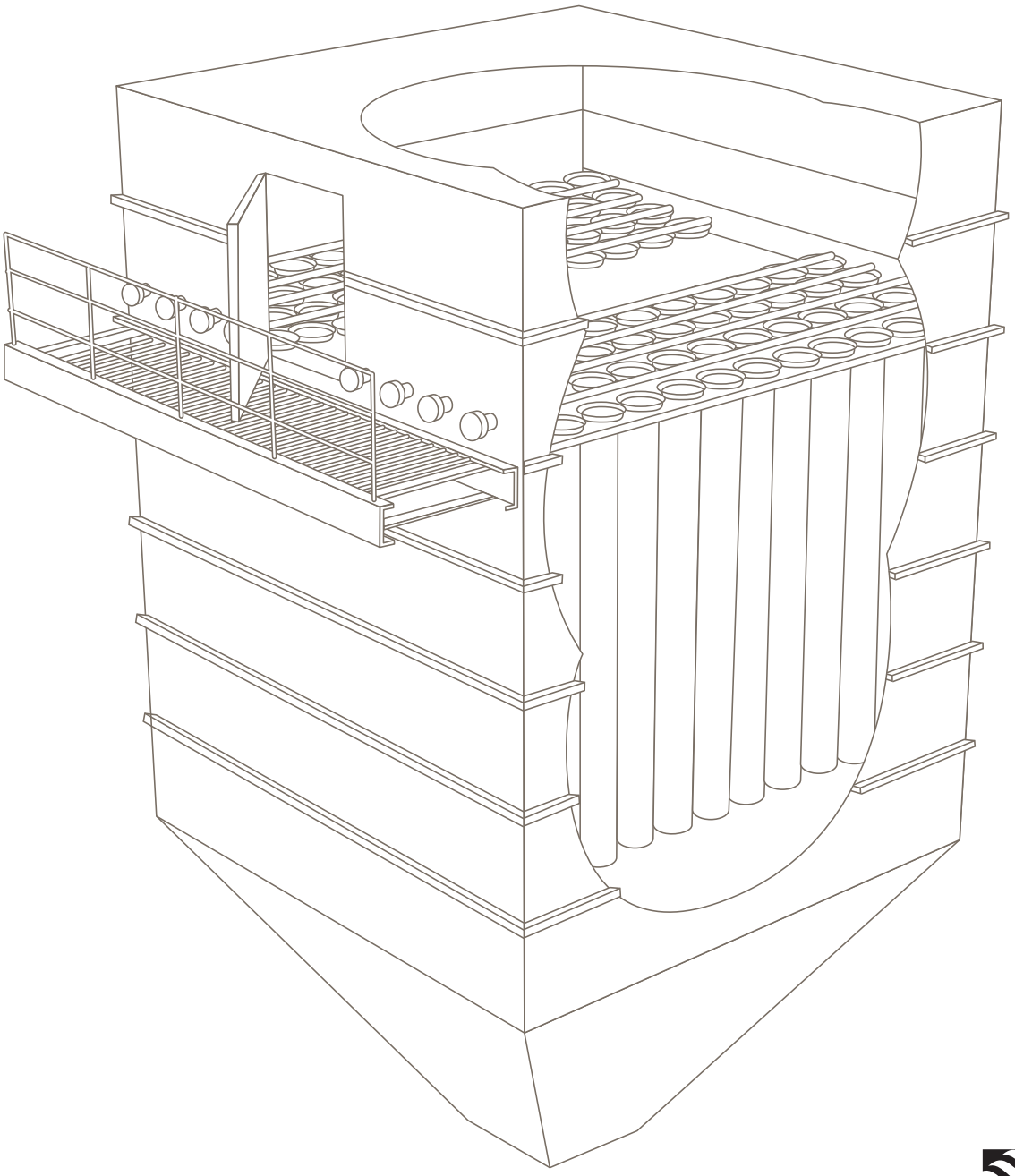
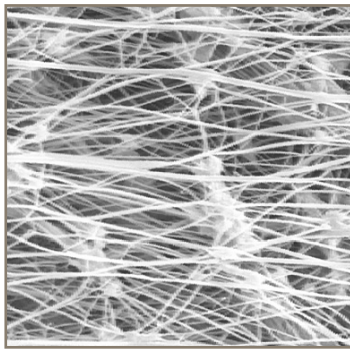


BHA®

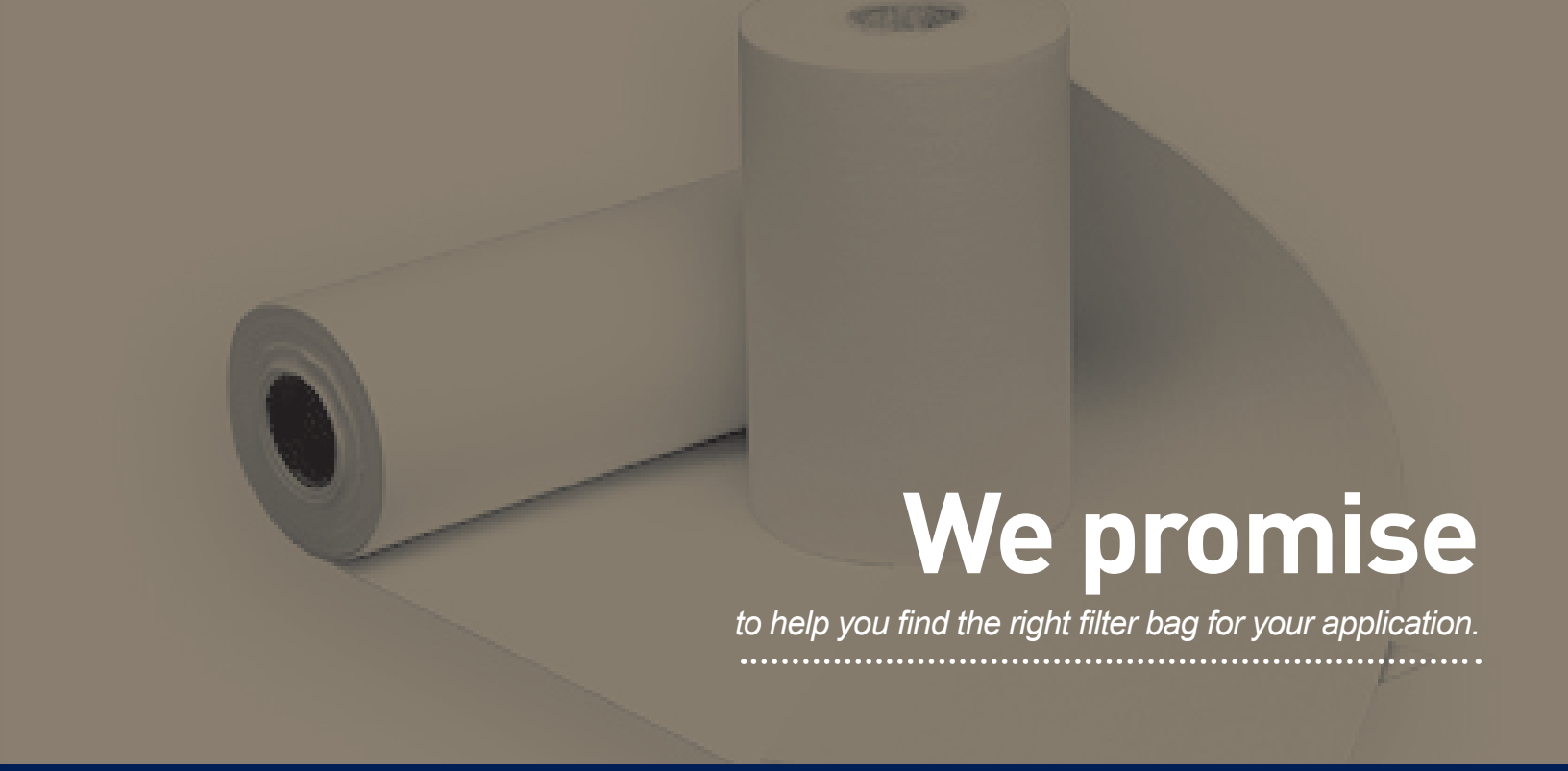
BHA® Preveil®

ePTFE Membrane Laminated Filter Bags
for Air Pollution Control



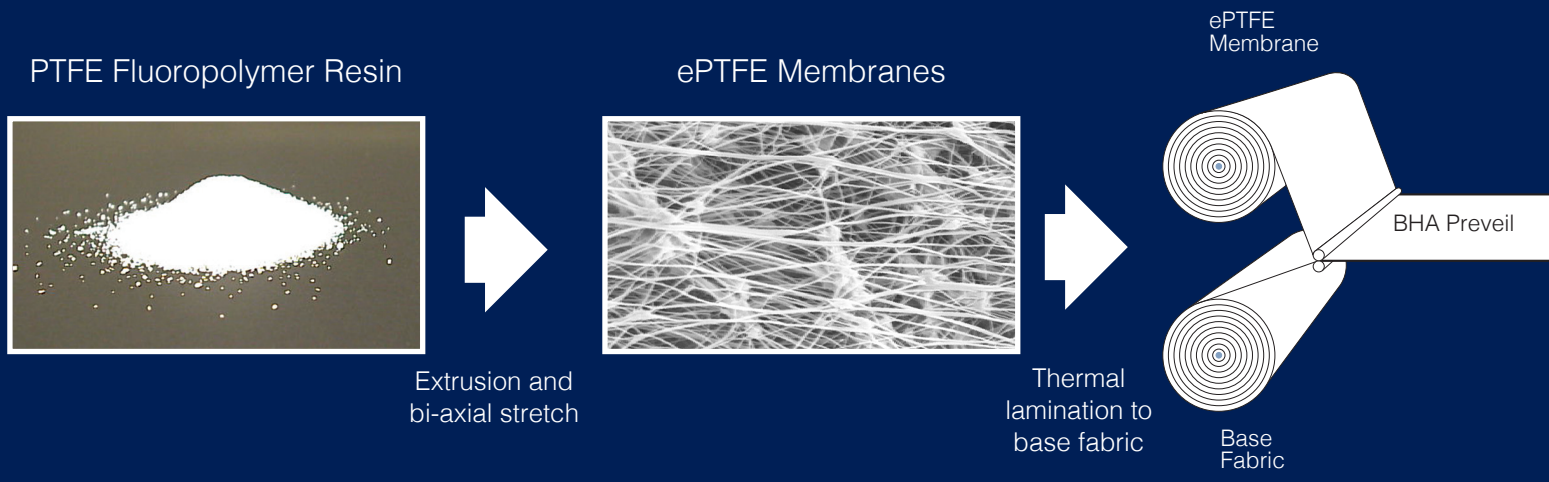
Parker

ENGINEERING YOUR SUCCESS.



We promise

to help you find the right filter bag for your application.



High Efficiency Filtration Technology

What is BHA Preveil ePTFE membrane?

BHA Preveil membrane is a microporous ePTFE (expanded polytetrafluoroethylene) membrane that is bonded to the surface of conventional filter media, including felts and woven fabrics, to provide one of the highest efficiencies of any available filter bag media.

High Efficiency Filtration for Your Dust Collector

BHA Preveil is made from PTFE resin, a substance with inherent non-stick properties that can be used to help your dust collector operate at maximum efficiency by providing:

- 99.99% efficiency
- Higher airflow
- Better cleaning
- Optimum emissions control

Innovative Textile Technology

Our dedicated team of scientists and engineers works closely with global textile suppliers to develop unique base media tailored for specific applications, while our own manufacturing facilities extrude PTFE into high-quality micro-porous membranes. Our knowledge of textiles and membrane manufacturing has led to improved thermal lamination, increased media performance and numerous patents.

Quality

Parker Hannifin is one of only a handful of organizations globally that offer testing capability, **ASTM D6830-02** and **VDI/DIN-3926.** With these rigorous tests, we can ensure that our membrane laminates are capable of meeting or exceeding today's emissions requirements. We also develop and apply other rigorous internal test protocols with quality control processes to ensure our products meet your specifications. As a global supplier of ePTFE products, we are ISO 9001-2000 certified and employ independent laboratories to perform third-party validation testing. We also offer a complete on-site filter bag analysis to evaluate your existing system's performance.

Performance Guarantees

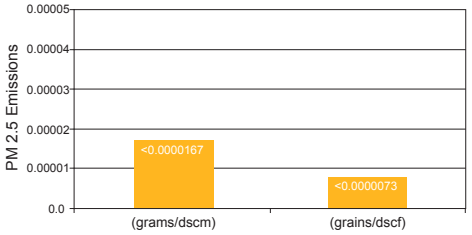
Filter media selection is one of the most critical factors to optimizing fabric filter performance. For added peace of mind, we offer performance guarantees on select BHA Preveil laminated filter bags for qualified applications.

BHA Preveil ePTFE membrane ETV test results

Filtration fabric tested: 22 oz. / yd² fiberglass with BHA Preveil membrane (QG061)

Filtration Efficiency–$PM_{2.5}$ Particle Filtration Emissions for BHA Preveil membrane laminate were below the detection limit of 0.0000167 grams/m^3. The application of BHA Preveil membranes provides enhanced collection efficiencies capable of meeting $PM_{2.5}$ regulations.

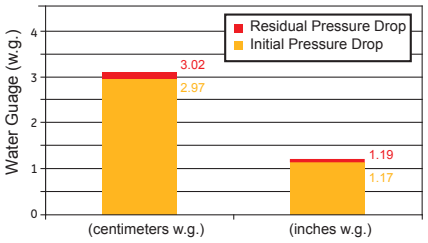
Outlet emissions concentration



Differential Pressure

The residual differential pressure following testing was negligible, indicating that there was virtually no dust penetration of the membrane. BHA Preveil membrane operates at a more consistent pressure-drop over the life of the filters due to its ability to readily clean down.

Pressure drop



The testing included using a Filter Efficiency Media Analyzer to measure total outlet particle concentration and particulate smaller than 2.5 microns. The test dust used was aluminum oxide dust with an average mass mean diameter of 1.5 micron. Each test run on a filtration fabric consisted of a conditioning period of 10,000 rapid pulse cycles, followed by a recovery period of 30 normal pulse cycles. Immediately following the recovery period, the 6-hour testing period began in which the filter media was pulse cleaned each time the pressure drop increased to 4" w.g. The testing evaluated filtration efficiency, pressure drop, and cleaning requirements.

ETV
www.epa.gov/etv

Disclaimer: The EPA Environmental Technology Verification Program (ETV) Name and/or Logo does not imply approval or certification of this product, nor does it make any explicit or implied warrantees or guarantees as to product performance. Information on the performance characteristics of the QG061 filtration media can be found at www.epa.gov/etv, or call Parker Hannifin at 1-800-821-2222 to obtain a copy of the ETV verification report.

The Right Product

for the right application.

Media. Size. Construction. A lot of careful consideration goes into choosing the ideal filter for your dust collector. That's where we come in. Our global team of industry specialists has decades of experience in the application of ePTFE membrane filter bags across a wide variety of industries. We'll help you evaluate your options and select the right filtration solution that can help you improve operations and optimize baghouse performance.

Incredible Responsiveness

When timelines are short and expectations high, it's great to have an experienced, responsive resource. That's why Parker Hannifin offers quick quote turnaround, follow-up delivery confirmation, and a 24-hour customer support hotline **(1-800-821-2222)** for handling unplanned plant outages and rush orders.

Product Support

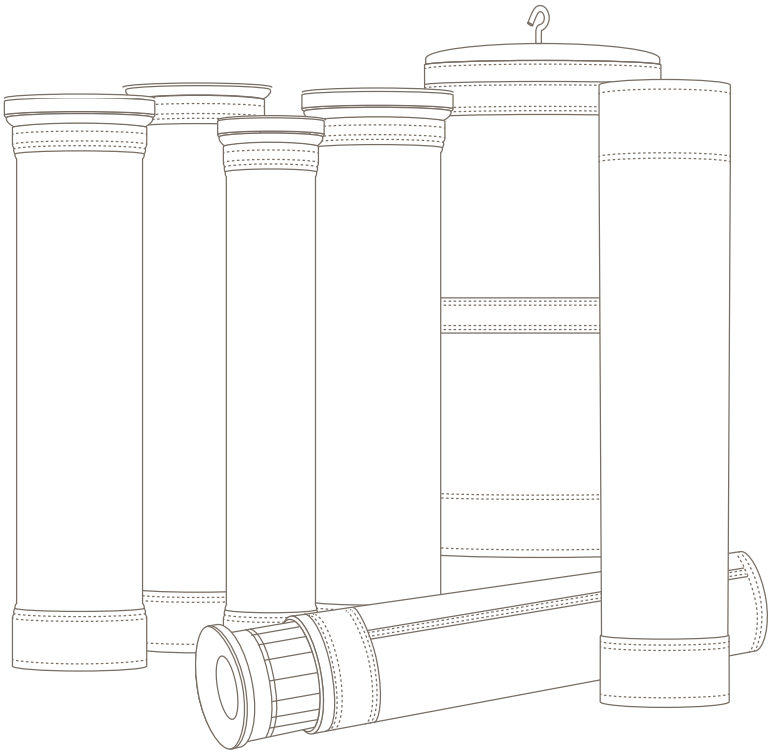
At Parker Hannifin, we understand that great products need great product support. Our dedicated sales and service teams offer reliable and convenient responses to your most commonly encountered application questions. We make sure we help you select the right product to fit your particular application needs.

"Our customers are doing more than purchasing a high-quality product. They're making a key investment in filtration technology that will positively impact the operation and performance of their fabric filter. That's why we provide careful analysis and evaluation to make sure that they optimize that investment with high performing and cost-effective solutions for their application."

- Parker Hannifin Product Application Engineer

At Parker Hannifin, we are motivated daily by a common belief: what we imagine…we can make happen. For nearly a decade, the Parker Hannifin team has been putting that imagination to work helping companies just like yours improve their operating performance with the best we have to offer in filtration media and finished filter bags for air pollution control equipment.

BHA Preveil



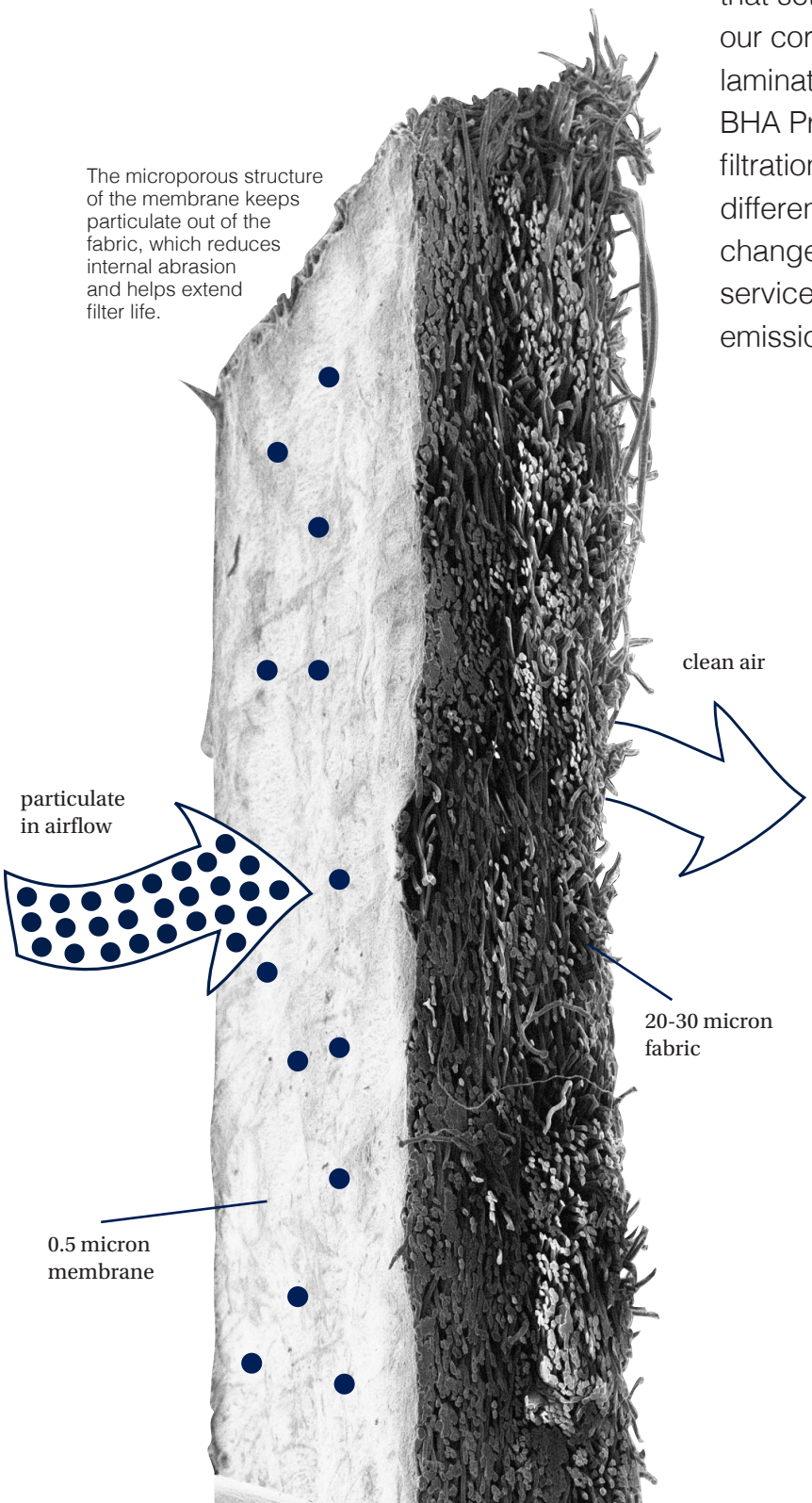
Laminated to a base material, BHA Preveil ePTFE membrane filter bags are designed to resist sticky and sub-micron particulates while ensuring consistent airflow. **That means you can spend more time producing, and less time and resources on fabric filter maintenance.**

Whether you operate a chemical or food processing facility, cement plant or coal-fired power plant, Parker Hannifin understands the processes within your industry. We make it our business to know your equipment and your application so we can confidently deliver the high-quality product that best addresses your specific needs. And we'll keep working with you well beyond the sale to ensure that you're satisfied. High-efficiency filtration solutions are at the heart of what we do. Rigorously tested and inspected, our BHA Preveil ePTFE laminated filter bags are designed to help you effectively reduce energy costs, increase your production, and keep up with increasingly stringent environmental emissions requirements. You can count on Parker Hannifin to deliver what you need, where you need it, when you need it.

High Efficiency Solutions for

Optimum Performance.

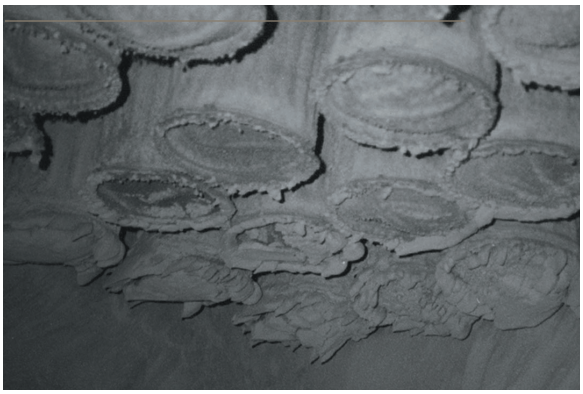
It's not just the quality of the membranes we make that sets us apart—it's what we do to them. Using our core competencies in membrane extrusion, lamination and finishing treatments, we design BHA Preveil membrane filter bags to improve filtration efficiency and operate at consistently low differential pressures. This helps reduce filter changeouts and energy costs, extends filter service life, and can help lower particulate emissions across a wide range of applications.



Surface vs. Depth Filtration

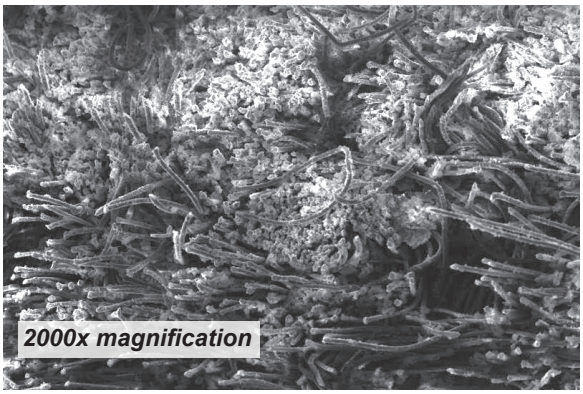
Unlike the conventional depth filtration performed by standard fabric filter media, the microporous structure of a BHA Preveil ePTFE membrane collects particles on the surface of the filter media. This fine filtration method virtually eliminates emissions that take place at startup and following the cleaning cycle. The result: greater ventilation, reduced internal abrasion and less emissions than a standard filter.

Traditional Filter Bags



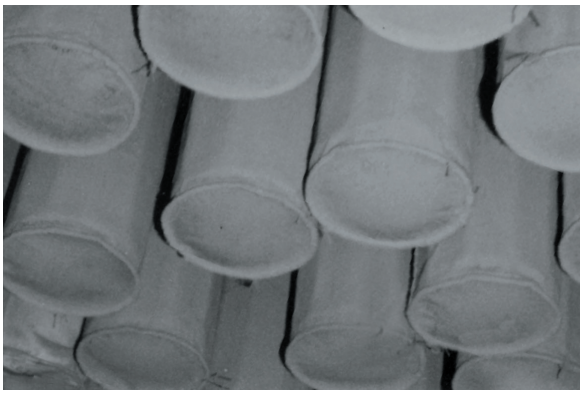
When particulate mixes with moisture, it forms a dense, non-permeable dustcake which increases differential pressure, reduces airflow and decreases production.

BHA Preveil PC008 — 16 oz. polyphenylene sulfide (PPS) felt media



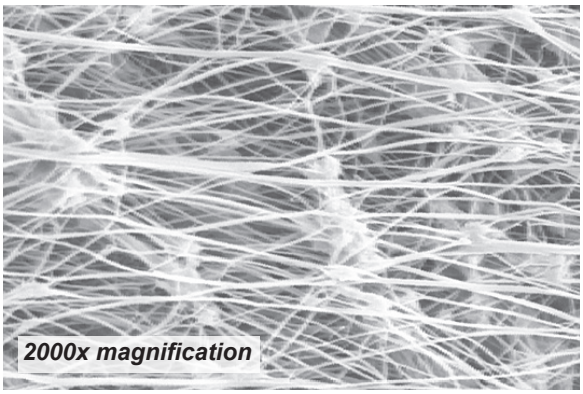
Particulate matter (white areas) embedded in the fabric. Over time dust particles embedded in the fibers may block airflow and increase differential pressure.

ePTFE Laminated Filter Bags



ePTFE laminated filters resist sticky dust and increase airflow. The result: increased production with more time and cost savings due to longer lasting filter life.

BHA Preveil QR033 – 15 oz. PPS laminated with BHA Preveil ePTFE membrane



Smaller pore structure capable of capturing submicron particulate and promoting consistently lower differential pressure and near zero emissions over the lifetime of the filter media.

Moisture Problem Prevention

Particulate, when exposed to moisture, can adhere to the fibers of the fabric causing agglomeration—a major problem in some collector applications. This agglomeration restricts airflow and causes differential pressure to increase. Not so with BHA Preveil ePTFE membrane filter bags.
Since the particulate sheds easily from the membrane, it is less likely to absorb enough to solidify on the surface.

Chemical Compatibility & Heat Tolerance

While BHA Preveil ePTFE membrane is unaffected by most aggressive chemicals and many harsh environments, the base fabric must also be durable enough to endure the rigors of start-up, shutdown, dewpoint excursion, and other process variations. For aggressive hot gas applications, BHA Preveil ePTFE can be laminated to felt PPS, standard and acid resistant aramid, P-84, fiberglass, and PTFE. BHA Preveil ePTFE membrane can withstand temperatures up to 500° F (260° C)

Reduced Differential Pressure

Parker Hannifin engineers have worked diligently with felt manufacturers and base media suppliers to develop base media and membrane combinations that resist cracking—a major cause of increased differential pressure. By doing so, we create a finished laminate that operates at consistently low differential pressure, while also helping increase throughput and lower energy costs.

Fabric Characteristics

Use this chart to determine which types of filter media are best suited to handle specific conditions.

Fabrics	Polypropylene	Acrylic	Polyester	PPS	Aramid	P84†	Fiberglass	PTFE Felt	Cellulose/ Polyester Blend
Maximum Continuous Operating Temperature	170° F (77° C)	265° F (130° C)	275° F (135° C)	375° F (190° C)	400° F (204° C)	500° F (260° C)	500° F (260° C)	500° F (260° C)	200° F (93° C)
Abrasion	Excellent	Good	Excellent	Good	Excellent	Fair	Fair	Good	Good
Energy Absorption	Good	Good	Excellent	Good	Good	Fair	Good	Good	Good
Filtration Properties	Good	Good	Excellent	Excellent	Excellent	Fair	Excellent	Fair	Good
Moist Heat	Excellent	Excellent	Poor	Good	Good	Excellent	Good	Excellent	Fair
Alkalines	Excellent	Fair	Fair	Excellent	Good	Fair	Fair	Excellent	Poor
Mineral Acids	Excellent	Good	Fair	Excellent	Fair	Poor	Good	Excellent	Poor
Oxygen (15%+)	Excellent	Excellent	Excellent	Poor	Excellent	Excellent	Excellent	Excellent	Excellent

Applications

The following are just a few of the many different applications where BHA Preveil ePTFE membrane filters have improved system performance.

Cement and Rock Dust
Kiln
Clinker Cooler
Crushing/Grinding
Raw Mill/Finish Mill
Packing Machines
Kaolin Processing
Material Loading
Material Handling/Transport
Coal Mill
Clay Grinding
Bentonite Crushing
Silo Bin Vents
Calciners

Food/Pharmaceutical
Food Additive Processing
Spray Drying
Pharmaceutical Pill Coating
Cereal Processing
Animal Vitamins
Pneumatic Conveying/Material Handling

Combustion
Boiler
Coal Handling
Fly Ash Handling
Hazardous Waste Incinerators
Soil Remediation
Waste to Energy
Carbon Black
Fume Metal Oxide

Chemical
Fertilizer Spray Dryers
Calcium Hypochlorite
Polyethylene Resins
Coke-Briquetting Process
Tire/Specialty Rubbers
Catalyst Manufacturing
Plastic Fibers
Cellulose Fibers
Polystyrene Fluff
Packaging
PVC
Detergents

Paint/Pigments
Toner Mixing/Blending
Pneumatic Conveying
Pigment Blending
Micronizers
Packaging
Paint Mixing
Spray Dryers

Metals
Electric Arc Furnace
Desulphurization Furnace
Induction Furnaces
Shot Blast/Grinding
Ladle Melt Furnace
Sand Shakeout/Sand Reclaim
BOF Furnace
Caster
Reverb Furnace
Sintering

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