



PERFORMANCE DRIVEN MATERIAL, UNRIVALED CUSTOMER SUPPORT

TETRATEX


Premium Membrane
Filter Media

INDUSTRIAL FILTRATION

 Filter Bags

TECHNICAL MATERIALS

Fuel Cell Stacks 

Microfiltration 

Life Sciences 

Medical Devices 



Our experienced regional technical specialists share your passion for engineering and product innovation. We are eager to understand your operation, processes and unique product requirements to help identify the ideal solution for your application.

Consistency Without Compromise

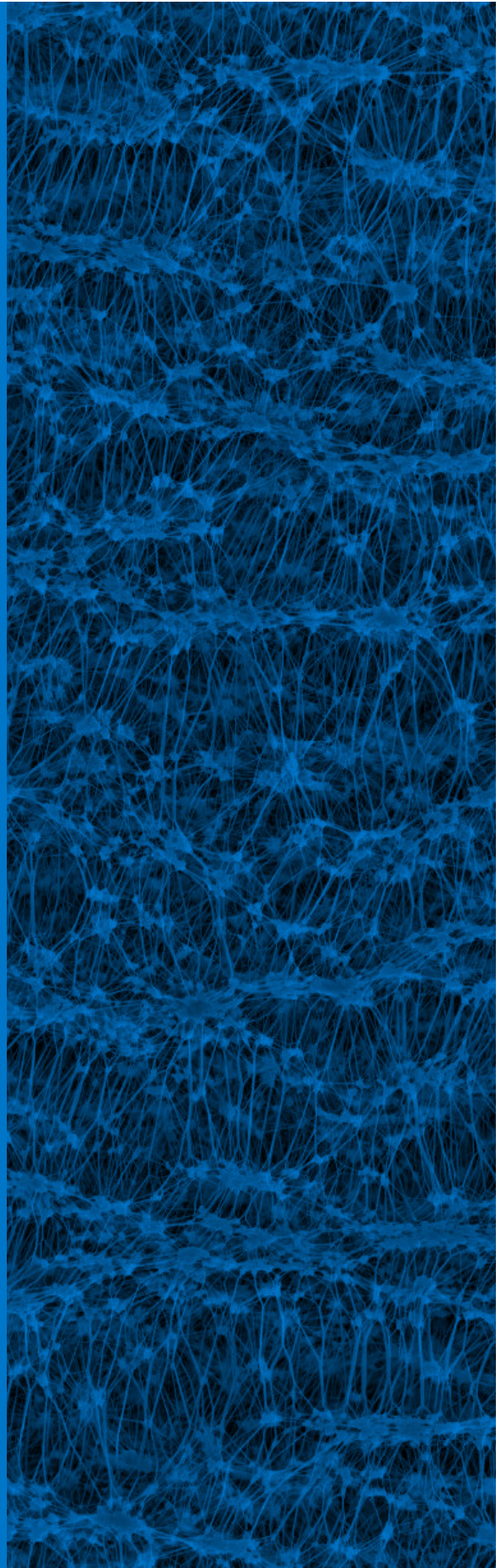
You manage a complex business, and every aspect needs to run smoothly. We're here to help by delivering fully validated filtration media that meet your high-performance requirements with every single order.

Donaldson combines market-specific expertise and our portfolio of expanded microporous PTFE (polytetrafluoroethylene) membranes, films and laminates to help manufacturers develop cutting-edge products for a wide range of industrial and technical film applications.

With an emphasis on high-quality manufacturing and customer service, Donaldson has been accredited ISO9001 and environmental certificate ISO14001, testaments to our high standards.

And because we know your reputation is on the line with every production run, Donaldson has manufacturing and sales offices located throughout Europe, America, and Asia to help ensure consistent supply and timely delivery.

Count on us for the high-performance materials, technical expertise, responsive service, and reliable supply you expect and deserve, without compromise.





The Unrivaled Tetratex® Media Portfolio

Tetratex® membrane filter media is a proprietary expanded microporous PTFE (ePTFE) membrane manufactured solely by Donaldson and engineered for high performance.

Tetratex membranes and laminates offer:

- **Particle Retention** — Removes micro-organisms, aerosols and small particles.
- **Increased Flow Rates & Throughput** — Allows high airflow, and low-pressure drop while maintaining a consistent pore size, helping to increase filter life and reduce operating costs.
- **Reduced Shedding and Minimal Extractables** — Enables compliance with stringent extractable limits.
- **Bacterial Retentive Membrane** — Reduces the risk of pathogens.
- **USP Class VI Compliant** — Meets both toxicity requirements and residual limits.
- **Steam Sterilization** — Can be sterilized with steam or ethylene oxide for food, beverage, and pharmaceutical applications.
- **Chemically Resistant** — Provides excellent chemical resistance in a variety of applications that involve challenging process conditions.
- **Inherently Hydrophobic** — Demonstrates excellent water repellency.

With pore sizes ranging from 0.05 to 5 microns, Tetratex ePTFE membrane can be converted into pleated cartridges, capsules, inline filters and disks, and is also available thermo-bonded to a variety of substrates.

Membrane Solutions for Every Challenge

Tetratex membrane filter media can be further tailored to meet your stringent membrane requirements across our wide-ranging areas of application expertise, including:

- Chemicals
- Power generation
- Metals
- Minerals
- Food and beverage
- Pharmaceuticals
- Fuel cells
- Life sciences
- Medical devices

Specialty applications

- Liquid and gaseous filtration applications such as pharmaceutical, electronic and sterile air, and process filtration
- Adhesive laminates in garments
- Emission filter disks
- Transducer protectors
- Semi-con pre-filtration
- Imaging



Whatever your industry, we are eager to understand your unique product requirements. Let us help you find the ideal filter media solution for your application.

IN-DEMAND APPLICATION



ePTFE-reinforced Polymer Electrolyte Membrane (PEM) for Fuel Cell Stacks

For light-duty and heavy-duty vehicles as well as green hydrogen production, our broad range of ePTFE structures, used as reinforcement for PEMs, offers:

- Strong mechanical strength
- Balanced mechanical strength on machine direction (MD) and transverse direction (TD)
- Low proton resistance
- Well-controlled properties, including thickness (density), pore size and porosity, etc.
- Low-cost solution for fuel cell stack durability

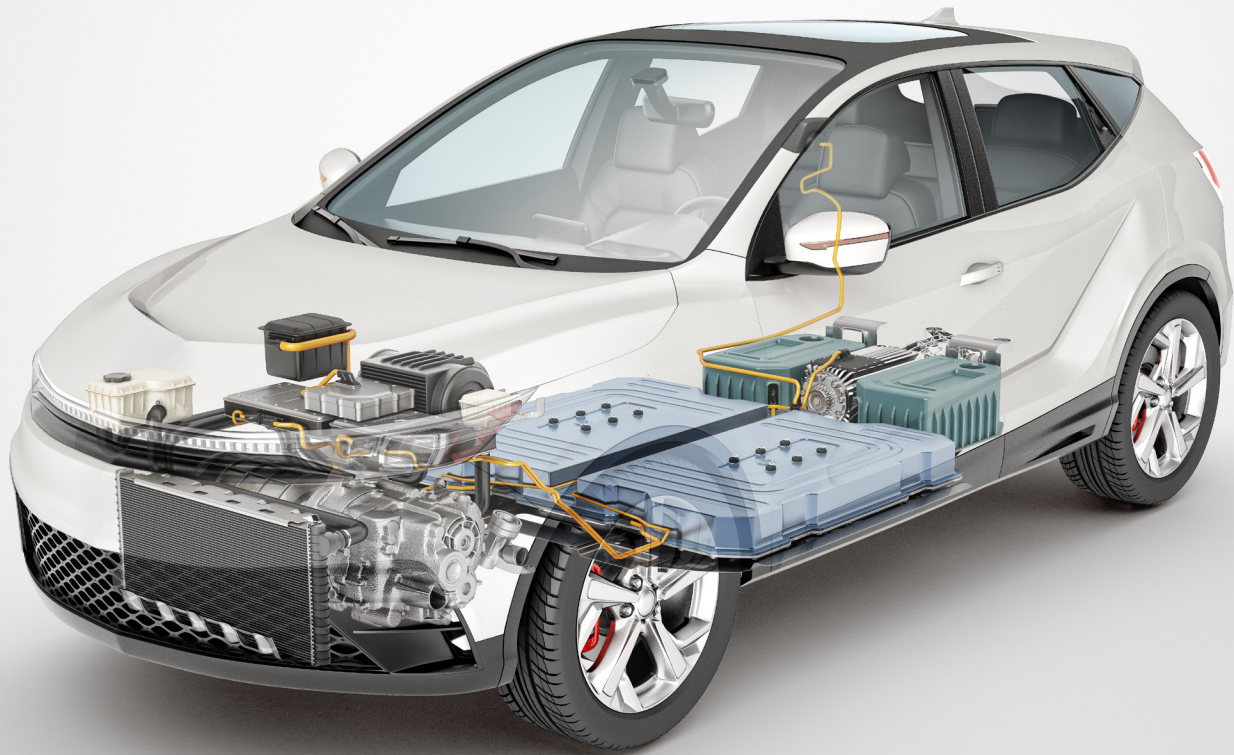


Venting Solutions for Medical Devices

Donaldson's technologically advanced enclosure protection vents offer protection against liquids and particulates while delivering maximum performance where it matters most.

Our team of experts combines experience with superior technical capabilities to find the best solutions for the most challenging applications, like syringe filters, ostomy bags, and hearing aids.

For syringe filters, for example, Donaldson offers a range of Tetratex ePTFE bacterial retentive membranes that are USP Class VI compliant, chemically resistant and low protein binding. Produced with non-shedding materials, they offer a high flow rate while maintaining a constant pore size for improved filter performance.



Battery & Powertrain Enclosure Protection Vents

We have decades of experience developing effective, efficient filtration and venting media for a variety of OEMs and Tier 1/Tier 2 suppliers.

Donaldson's Tetratex ePTFE membranes are oleophobic and hydrophobic to help protect automotive battery packs and support

battery life and reliability in enclosure protection vents.

Our dual-stage vents seal and guard against water, dirt, contaminants and harsh automotive fluids; provide continuous pressure equalization and effective ventilation; and help ensure proper mitigation in case of a thermal runaway event.



Reliable Microfiltration Options

Tetratex ePTFE membrane has a unique microporous structure that delivers a high flow rate, a high number of sterilization cycles, and long life.

It performs separation, purification and sterilization functions in a variety of air and liquid ultra-high purity gas microfiltration systems.

Microfiltration applications include pleated cartridge filters, capsule and point-of-use filters, and laboratory disc filters.



Filter Bags

Tetratex filter media can help enhance the performance of a fabric filter by utilizing surface filtration technology rather than traditional depth filtration methods.

Tetratex filter media can be laminated to a variety of base substrates to provide a complete range of media including woven and felted textile media for conversion into all types of filter bags as well as pleatable media for cartridge-style elements.

The unique structure of Tetratex ePTFE membrane filter media helps prevent the penetration of fine dusts into the supporting substrate and facilitates excellent cleanability due to its nonstick characteristics.

TETRATEX® FILTRATION MEDIA PORTFOLIO – INDUSTRIAL PRODUCTS

Substrates	Tetratex® Release	Tetratex® EXTREME	Tetratex® Xcel	Tetratex® High Efficiency	Tetratex® Ultra High Efficiency	Tetratex® Contact	Tetratex® Contact High Efficiency	Tetratex® HEPA
Acrylic Felt	X	X	X	X				
Aramid Felt		X	X	X				
Aramid Antistatic Felt		X						
Aramid Acid Rest Felt			X					
Pleatable Aramid Fabric		X						
Pleatable Polyester Fabric		X	X	X				X
Pleatable Polyester Antistatic Fabric		X	X	X		X	X	X
Pleatable Polypropylene Fabric		X						
Pleatable PPS Fabric		X		X	X			
Polyester Felt	X	X	X	X	X	X	X	
Polyester Antistatic Felt	X	X	X	X	X	X	X	
Polyimide Felt		X			X			
Polypropylene Felt		X	X			X		
Polypropylene Antistatic Felt		X	X					
PPS Felt	X	X	X			X		
PPS Antistatic Felt		X	X					
PTFE Felt				X	X	X		
PTFE Antistatic Felt				X				
Woven Glass Fabric				X	X			
Woven Glass Acid Resist Fabric				X	X			
Woven Polyester				X				
Woven Polyester Antistatic Fabric				X		X		
Woven PTFE Fabric				X	X		X	

Please note: Tetratex Release, Tetratex EXTREME, Tetratex Xcel, Tetratex High Efficiency, Tetratex Ultra High Efficiency and Tetratex HEPA are not certified for Food and Pharmaceutical applications. The Tetratex Contact® range is both EU and FDA certified for Food and Pharmaceutical applications. Product matrix correct as of March 2023; this chart is subject to change at any time without prior notice.

TETRATEX® MEMBRANE MEDIA PORTFOLIO – TECHNICAL MATERIALS

Nominal Pore Size (µm)	Membrane Only ePTFE	Laminates					Typical Application
		Polypropylene				Polyester	
		Typar 3161L	Typar 3151C	Novatexx 2010	Novatexx 2471	Reemay 2275	
0.05					6624		Food and Beverage
0.1	1301	TX6501	TX6521			TX6531	Membrane Distillation Food and Beverage Microfiltration
0.2	1320 1333						Sterile Vent Bacterial Retentive
0.2	1302 3115	TX6502 TX6689	TX6522	TX6679		TX6532	Medical Devices Pharma/Food and Beverage Microfiltration Membrane Distillation Membrane Separator (Liquid in Gas Stream) Wound Care
0.2		HY6502					Hydrophilic Laminate Medical HEPA Medical Devices Microfiltration
0.45	1303	TX6503	TX6523			TX6533	Pharma/Food and Beverage Process Air Filtration Medical Devices Membrane Distillation Microfiltration
0.45		HY6503					Hydrophilic Laminate Medical Devices Microfiltration
1.0	1314	TX6506	TX6526			TX6536	Microfiltration LCD Chemicals Medical Devices
1.5	1315	TX6508	TX6528			TX6538	Pharma Manufacturing Medical Devices Microfiltration
3.0		TX6806					Microfiltration LCD Chemicals Food and Beverage
5.0		TX6807					Microfiltration LCD Chemicals

Please note: Product matrix correct as of March 2023; this chart is subject to change at any time without prior notice.

Why Work with Donaldson

For more than 100 years, we have helped solve some of the world's most complex industrial filtration challenges through innovative research and development.

Donaldson is committed to consistently delivering:



Expertise & Experience

With more than 30 years of dry filtration experience, Donaldson can provide a thorough and educated evaluation of your system process to determine the most suitable Tetratex filter media solution. Rely on us for innovative design, manufacturing, filtration knowledge and technical support.



A True Collaboration with You to Meet Your Production Needs

The Donaldson membranes solution technical team can assist with manufacturing requirements, installation support, commissioning, recommended routine maintenance advice and troubleshooting.



Continued Support of Your Business

In order to ensure your application continues to run at optimum levels, regular routine condition testing of filter media is recommended. The laboratory facility of Donaldson can provide detailed analytical feedback, providing a full breakdown of the testing carried out (typically retained permeability, residual tensile strength and supporting microscopic photography), which can be used to highlight potential process issues. Donaldson can even provide SEM (Scanning Electron Microscope) and particle size analysis capability when a more detailed examination is required.



donaldson.com/membranes/

Donaldson Company, Inc.
Minneapolis, MN

Contact us using the QR code below to learn more.



Important Notice: Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the condition under which the product is used. Since these factors are uniquely within the user's knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, product specifications, availability and data are subject to change without notice, and may vary by region or country.

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