

General Characteristics of Tetratex ePTFE Membranes

Unique microporous structure, high porosity, bi-axial structure, hydrophobic, chemically inert, operating temperature -250 to +280°C, low coefficient of friction, inhibits particulate penetration which helps to preserve integrity of the substrate.

- Tetratex high performance ePTFE membranes deliver high particulate capture rates and excellent dust cake release.
- Near-zero emissions meet required regulatory standards.
- Lower constant operating pressure drop resulting in energy savings.
- Increased filter element life and less frequent cleaning can be achieved due to the anti-adhesive properties of the membrane, delivering reduced maintenance and operational costs.
- Tetratex provides increased efficiency and reduced costs resulting in increased profitability.

Substrates	Tetratex Release	Tetratex EXTREME	Tetratex High Efficiency	Tetratex Ultra High Efficiency
Acrylic	•	•		
Acrylic Antistatic		•		
Aramid	•	•		
Aramid Antistatic		•		
Pleatable Aramid		•		
Pleatable Polyester		•	•	
Pleatable Polyester Antistatic			•	
Pleatable PPS		•		
Polyester	•	•	•	•
Polyester Antistatic	•	•		•
Polyimide		•		
Polypropylene		•		
Polypropylene Antistatic		•		
PPS	•	•		
PPS Antistatic		•		
Woven Glass			•	•
Woven Polyester			•	
Woven Polyester Antistatic			•	
Woven PTFE				•



Please contact us if you would like advice on maximising filter efficiencies. We offer a range of support services including troubleshooting and filter media analysis.

Donaldson Membranes **UK, Ireland, Nordic Regions, Scandinavia and Benelux**

T +44 (0)1942 711 711
E membranes-europe@donaldson.com
F +44 (0)1942 711 571

Donaldson Membranes **The Middle East, CIS Countries and Baltic States**

T +45 51 15 83 63
E membranes-europe@donaldson.com
F +45 33 15 83 63

Donaldson Membranes **France and North Africa**

T +33 546 831 147
E membranes-fr@donaldson.com
F +33 546 831 450

Donaldson Membranes **Germany and Eastern Europe**

T +49 259 478 1692
E membranes-de@donaldson.com
F +49 259 478 1693

Donaldson Membranes **Iberia and Italy**

T +34 933 394 266
E membranes-es@donaldson.com
F +34 933 395 340

www.donaldson.com

Serving the Chemicals Industry

High Performance ePTFE Membranes



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Donaldson Membranes is well established as a supplier to the chemical industry, with a wealth of knowledge and expertise in providing filter media solutions. We have developed our products in close co-operation with customers, utilising 20 years of Tetratex® ePTFE membrane technology.

Increasing collection efficiencies, reducing energy consumption and environmental emissions are three of the greatest challenges facing the chemical industry today. Donaldson Membranes can help overcome these challenges by providing filter media for many chemical applications.

Donaldson Tetratex Membranes

Donaldson Tetratex ePTFE membrane filter media can bring about improvements to a wide range of applications within a variety of chemical manufacturing processes, giving improved collection efficiencies, airflow and throughput, often increasing production levels beyond those previously possible.



• Calcining • Milling • Kilns • Dryers • Micronising • Classifying • Venting

TETRATEX MEMBRANE ELIMINATES CMC EMISSIONS AT MAJOR CHEMICAL PLANT

The employment of Tetratex #6273 filter media has prevented the loss of valuable CMC (Carboxymethylcellulose) dust at a major chemical plant where significant amounts of valuable CMC dust were being lost, which not only was expensive in terms of product loss but was also causing pollution to the environment.

Results

- Emissions were reduced from 150mg/Nm³ to less than 3mg/Nm³
- Increased production and profits
- Less frequent cleaning due to excellent dust cake release meant longer bag life
- Differential pressure had decreased

For the customer the benefits were increased production and profit, whilst ensuring a pollution-free working and living environment. The CMC Plant Manager was extremely satisfied and pleased that Donaldson were able to provide such a successful solution to the problem.

CONSISTENT PERFORMANCE WITH TETRATEX #6255 AT PREMIER CHROMIUM PRODUCER

Donaldson Membranes #6255 Woven Glass filter media has provided consistent performance at a major plant of a world renowned producer of Chromium Oxide. The plant, which produces a number of Chromium based products, were looking for an effective and reliable dedusting pulse jet filter system, on which their rotary kiln operation is dependant. Simultaneously the plant wanted to ensure particulate emission levels were maintained well below regulatory figures. Tetratex #6255 filter media was selected.

Results

- Gas Volume: 47,000 Am³/Hr
- Operating Temperature: 200 - 250°C
- Total Filtration Area: 935m²
- Operating pressure drop: <150mmWG
- Filter bag cleaning pressure: 3.0 bar
- Particulate emissions: <5mg/Nm³
- Bag life: 5 years

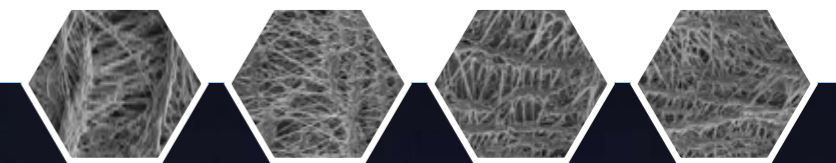
The client was extremely satisfied with the performance of the filter media which has helped to limit their expenditure on filter bags, maintenance costs and energy consumption, whilst ensuring production rates are optimised and particulate emissions are controlled effectively.



The benefits of Tetratex

- Increased particulate collection efficiency
- Increased filter element life
- Reduced emissions
- Reduced bag house pressure drop
- Reduced bag house downtime
- Increased productivity
- Reduced energy consumption

Donaldson Membranes has a comprehensive range of media for filters operating with bags or pleated cartridge elements.



Chemical Applications:
(Full temperature range available up to 280°C)

Calcining • Milling • Kilns • Dryers
Micronising • Classifying • Venting

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