

The Benefits of Tetratex®

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

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 Antistatic	•	•		•
Polyester	•	•	•	•
Polyimide		•		
Polypropylene		•		
Polypropylene Antistatic		•		
PPS	•	•		
PPS Antistatic		•		
PTFE Felt			•	
Woven Glass			•	•
Woven Polyester			•	
Woven Polyester Antistatic			•	
Woven PTFE			•	•



Serving the Cement Industry



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

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Tetratex® ePTFE Membrane Filter Media

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Raw Mills - Kilns - Coal Prep Plants - Alkali Bypass - Clinker Cooler - Finish Mills

Donaldson Membranes is a well established supplier to the cement 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.

Reducing energy consumption and environmental emissions are two of the greatest challenges facing the cement industry today. Donaldson Membranes can help to overcome these challenges by providing filter media for the following filtration applications.

- Raw Mills • Kilns • Coal Prep Plants • Alkali Bypass
- Clinker Cooler • Finish Mills • Venting/Conveying

Donaldson Tetratex Membranes

Tetratex ePTFE membranes are used in many parts of the cement manufacturing process, giving improved airflow and throughput, which translates into increased production rates. Optimisation of mill efficiencies and the elimination of production bottlenecks can provide increased factory output.



TETRATEX® #5102 PROVIDES A RELEASE FROM PRODUCTION BOTTLENECK AT TURKISH CEMENT PLANT

The employment of Donaldson Membranes' Tetratex Release #5102 has substantially increased production at a Turkish cement plant, where a production bottleneck at one of the mills was slowing down the cement process.

Results after 4 weeks

- The flow rate had increased from 176500m³/h to 179500m³/h
- Differential pressure had decreased from 197mmWG to 131mmWG
- Cleaning pressure was reduced from 6 bar to 5 bar
- The plant manager was delighted

Donaldson Membranes filter media succeeded in reducing the pressure drop by a third, eliminating all visible emissions and removing the bottleneck, thereby increasing production and profits at the plant.

The investment in new filter bags paid for itself within a relatively short space of time due to the savings in: pressurised air; energy; maintenance costs and increased output.

Donaldson Membranes



The benefits of Tetratex

- Increased bag life
- Less downtime
- Reduced emissions
- Increased productivity
- Reduced pressure drop
- Cost reductions and increased profitability

General membrane characteristics

- Unique microporous structure • High porosity
- Membrane operating temperature (-250 to +280° C)
- Bi-axial structure • Inhibits fine particulate penetration
- Chemically inert • Hydrophobic
- Low coefficient of friction
- Helps to preserve the integrity of the substrate



Ambient/ Low Temperature

Typical Media

Venting/Conveying
Raw Mills

Polyester
Polyester
Homopolymer Acrylic
Antistatic Polyester
Antistatic Acrylic
Polyester
Homopolymer Acrylic

Coal Prep Plants

Finish Mills

High Temperature

Typical Media

Kilns
Clinker Coolers

Alkali Bypass

Fibreglass
Homopolymer Acrylic
Fibreglass
Aramid
Aramid
Fibreglass

DONALDSON MEMBRANES SUPPLIES CBR HEIDELBERG CEMENT'S LIXHE PLANT

Complete modernisation of the dry-process production line to increase capacity from 3400 to 4200 tpd and maximise use of secondary fuels to meet environmental protection standards. Tetratex Ultra High Efficiency #6255 Woven Glass fabric was selected.

Results

- Emissions reduced from 50mg/Nm³ to below 3mg/Nm³
- Lower pressure drop - the guaranteed pressure drop is 80mm
- Less frequent cleaning due to excellent dust cake release properties of the media
- Increased bag life and lower maintenance costs