



Breathe easier, live greener, and
go further than **ever before.**

INDUSTRIAL FILTRATION SOLUTIONS FOR
BUILDING & CONSTRUCTION MATERIALS

CEMENT & AGGREGATES

As the global leader in Air Pollution Control, Alkegen Industrial Filtration combines worldwide manufacturing reach with deep technical expertise and support. Our needlefelt manufacturing, membrane lamination, and finished filter bag production spans the UK, USA, Europe, and China — serving the filtration, separation, thermal, and acoustical markets.

Our engineering experts support filter bag manufacturers, end-users, and OEMs to solve real-world challenges, including reducing emissions, optimizing performance and reducing energy and operating costs.

The manufacturing of cement and aggregates involves a wide range of applications demanding a similarly wide range of filter media options.



Our Products



fiberlox® *duotech*™

microfelt® *circron*™

checkstatic™ *ultratech*®

glasstech™ *pleatlox*®

Synthetic and Specialty Fibres

- Polyester
- Homopolymer Acrylic
- Meta-Aramid
- Polyphenylene Sulphide (PPS)
- Polyimide
- Fibreglass
- Anti-Static Media Options
- Polytetrafluorethylene (PTFE)

Capabilities

- Process Assessments
- Media Analysis
- Filter Bag Condition Testing
- Troubleshooting
- Product Development
- Warranty Advice & Full Installation Support

Filtration in the Cement Industry



Cement manufacturing processes comprise a number of stages which involve processing dry dusts in one form or another. These processes generate dust-laden gases that demand effective exhaust ventilation. Bag filter technology has long served these applications, and its role continues to grow.

Alkegen Industrial Filtration has been at the forefront of filter media development for the cement sector, helping plants reduce dust emissions while improving production efficiency. Our product range has been developed in close collaboration with customers to meet the specific and exacting demands of this market.

Case References – Cement Industry

Cement Kiln – Raw Mill

When persistent bag failures at a cement plant were traced back to poor bag design and insufficient pressure drop, Alkegen Industrial Filtration redesigned and installed a replacement set from our Gutsche portfolio – combining Duotech™ PTFE membrane with Glasstech™ media. The results have been immediate and lasting: stable pressure drop and no bag failures recorded since installation.

- **Product Code:** G0770W1M – Duotech™ Woven Glass with PTFE Membrane
- **Gas Volume:** 320,000 Nm³/Hr
- **Operating Temperature:** Direct Mode 180°C; Compound Mode 100°C
- 3,024 filter bags 6m long x 127mm dia
- **Operating Pressure Drop:** <130mm WG
- **Particulate Emissions:** <5mg/Nm³

Cement Kiln – Raw Mill

Alkegen Industrial Filtration supplied a complete set of Polyimide (P84®) filter bags for the startup of this new cement plant – performance met all objectives in respect of a stable pressure drop and particulate emissions were maintained well below the guaranteed level of 10mg/Nm³.

- **Product Code:** J0550J1S – P84® Needlefelt / P84® scrim (Singed Finish)
- **Gas Volume:** 470,000 Am³/Hr
- **Operating Temperature:** Direct Mode 155°C; Compound Mode 140°C
- 3,168 filter bags 6m long x 127mm dia
- **Operating Pressure Drop:** <140mmWG
- **Particulate Emissions:** <10mg/Nm³

Cement – Finish Mill

A cement plant in the Middle East was experiencing repeated bag failures in their finish mill filters, having originally specified acrylic filter bags.

Alkegen Industrial Filtration carried out a thorough review of the operating conditions and recommended a switch to PPS media with our CRI chemical treatment. The results speak for themselves – no bag changes in 24 months, a stable pressure drop, and consistent production levels throughout.

- **Product Code:** R0600RIJ+CRI – PPS Needlefelt / PPS Scrim (Glazed Finish)
- **Gas Volume:** 100,000 Am³/Hr
- **Operating Temperature:** 130–140°C
- 700 filter bags 4.5m long x160mm dia
- **Operating Pressure Drop:** <120mm WG
- **Particulate Emissions:** <10mg/Nm³

Alkegen Industrial Filtration understands that no two processes are the same and that optimized fabric filter performance is only achieved when full system reviews are conducted in partnership with our customers.

Coal Mill

A coal mill system was battling persistent bag performance issues. Moist, sticky dust was preventing conventional filter bags from cleaning effectively – particularly problematic during winter.

Switching to Alkegen's Duotech™ PTFE membrane filter bags in anti-static aramid felt resolved the issue. The filter now runs at a consistent, stable pressure drop with mill throughput maintained at acceptable levels.

- **Product Code:** AS509ASM – Checkstatic™ Aramid Stainless Steel Needlefelt / Aramid Scrim with PTFE Membrane
- **Gas Volume:** 50,000 Am³/Hr
- **Operating Temperature:** 120°C – 180°C
- 708 filter bags 3.1m long x 117mm dia
- **Operating Pressure Drop:** <150mmWG
- **Particulate Emissions:** <10mg/Nm³

Applications

Raw Meal Mills

Coal Mills

Kilns

Clinker Coolers

Finish Milling

Packaging

Rotary Kilns

Conveying



Alkegen Industrial Filtration products have been employed in the cement and aggregates industries for more than 50 years.

Filtration in the Aggregates Industry



Minerals processing spans a wide range of applications — from blasting and quarrying to calcination, milling, and asphalt coating. Many generate airborne particulate matter in demanding gas conditions, with significant variation in temperature and chemistry from one process to the next.

No two applications are alike, and no single filter media solution fits all. Alkegen Industrial Filtration understands this. With years of experience across the minerals sector, we assess each application on its own merits — offering a full spectrum of fibre types with proprietary treatments designed to meet the production and environmental needs of this market.

Applications

Kilns	Mills	Hydrators	Asphalt Batch Mixers	Dryers
				

Case References – Aggregates Industry

Calcium Carbonate – Mill

- **Product Code:** P0550PIM – Duotech™ Polyester Needlefelt with PTFE Membrane
- **Gas volume:** 34,000 Am³/Hr
- **Operating Temperature:** Up to 120°C
- 320 filter bags 3.6m long x 130mm dia
- **Operating Pressure Drop:** <130mmWG
- **Particulate Emissions:** <5mg/Nm³

Asphalt Drum Mixer

- **Product Code:** A0402AIS – Microfelt® Aramid Needlefelt
- **Gas volume:** 48,000 Am³/Hr
- **Operating Temperature:** Max 110°C
- 640 filter bags 2.8m long x 140mm dia
- **Operating Pressure Drop:** <130mmWG
- **Particulate Emissions:** <15mg/Nm³

Lime – Shaft Kiln

- **Product Code:** JL0650L3H+DR8 –PTFE+P84™ Blended Needlefelt with DR8 PTFE Treatment
- **Gas volume:** 200,000 Am³/Hr
- **Operating Temperature:** 220°C
- 1200 filter bags 5.0m long x 160mm dia
- **Operating Pressure Drop:** <140mmWG
- **Particulate Emissions:** <15mg/Nm³

Asphalt Drum Mixer

- **Product Code:** R0550RIM – Duotech™ PPS Needlefelt with PTFE Membrane
- **Gas volume:** 54,000 Am³/Hr
- **Operating Temperature:** Max 110°C
- 600 filter bags 3.1m long x 118mm dia
- **Operating Pressure Drop:** <130mmWG
- **Particulate Emissions:** <10mg/Nm³

Benefits

Fewer
Shutdowns

Reduced
Environmental
Emissions

Longer
Service Life

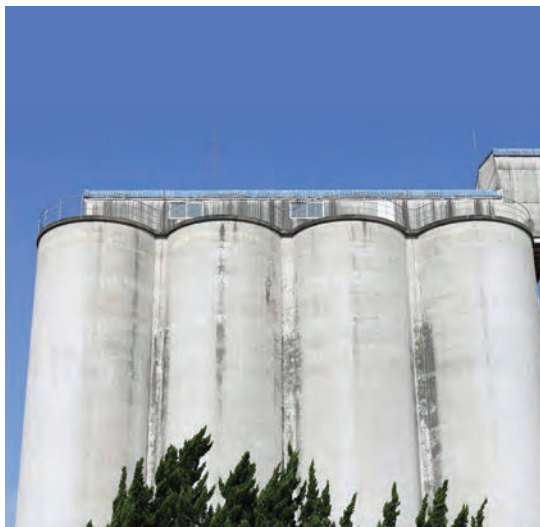
Increased
Production

Technical
Support

Reduced
Energy Costs

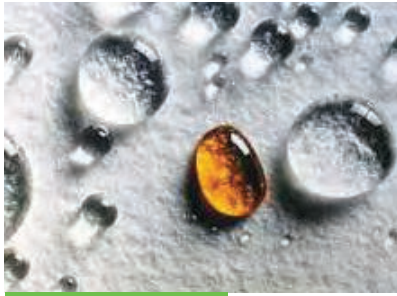
Improved
Reliability

Reduced
Pressure Drop



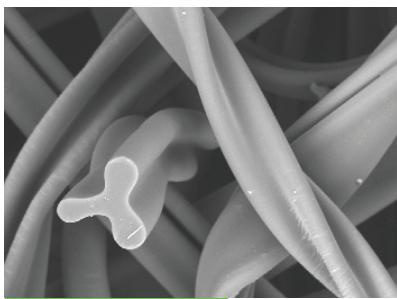
Optimize your filter performance

Product Highlights



Proprietary Treatments

A variety of treatments are available to enhance chemical resistance properties of the filter media, to aid cleanability and to extend filter bag life, while improving overall filtration performance in demanding applications.



P84® Fibre

Polyimide (P84®) is a high temperature fibre which displays high level particle collection efficiency due to its high surface area. An improved surface filter cake is more easily managed and dust penetration inhibited as a result. Alkegen Industrial Filtration are able to utilise the properties of P84® fibre to provide a range of filtration felts that are mechanically robust and able to deliver superior filtration performance.



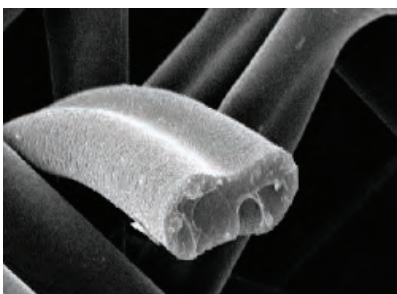
Microfelt®

Kiln and mill operations typically generate very fine dusts which can prove challenging to filter effectively. Alkegen Industrial Filtration has developed a range of products which have been engineered with these applications in mind – felts employing fine fibres are better able to deliver high particle collection efficiency when fine dusts are to be handled and a variety of fibre blends and finishes can be applied to enhance filter bag performance.



Duotech™ Membrane and Glasstech™

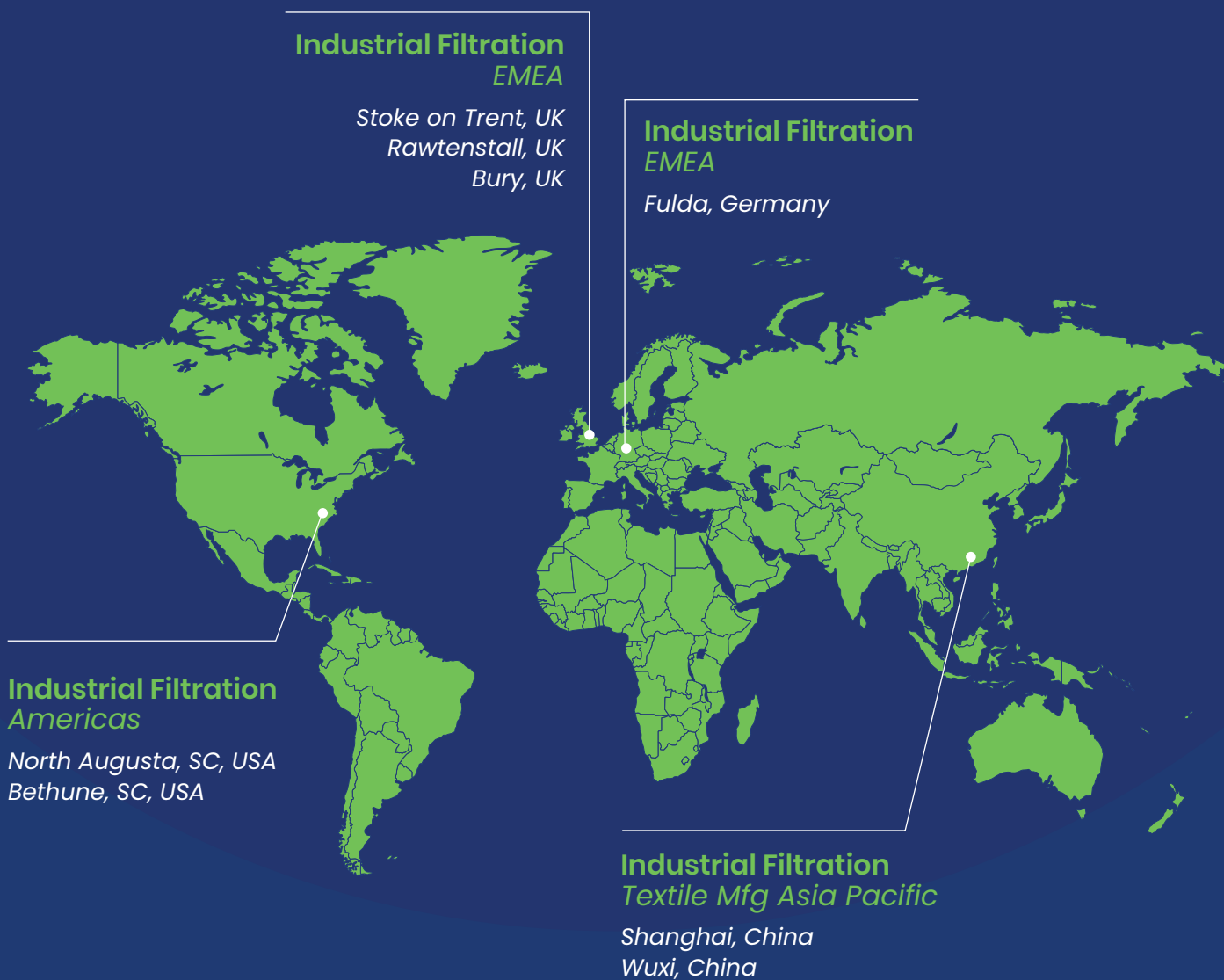
Part of our Duotech™ range of PTFE membrane laminates, Glasstech™ products can provide true high temperature operation capability up to 260°C combined with emissions near-zero and optimised filter pressure drop.



Meta Aramid Fibre

Many applications in the minerals industry generate high operating temperatures in the fabric filter – Meta Aramid fibres (eg. Nomex®) can permit operation up to 200°C on a continuous basis and are commonly applied in a number of mineral thermal processes.

Industrial Filtration Locations



ALKEGEN

For more information, visit
us at www.alkegen.com

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