Product Information Sheet

The Trend to Zero Emissions

INTRODUCTION

The performance of modern filtration systems depends on the quality of the filter media at their core. With *microvel*®, filtration is moving decisively toward near-zero outlet emissions.

By applying advanced micro-batt technology, *microvel*® delivers a significantly larger effective filtration surface, resulting in higher efficiency, superior cleanability, and longer service life. This puts *microvel*® at the forefront of a new generation of high-performance micro-webbed needlefelts.

On-site comparisons consistently demonstrate that *microvel*® improves cleanability and filtration efficiency, helping customers extend operating lifetimes and reduce maintenance demands.

Cross-sectional fabric analysis shows that even the most challenging, non-agglomerating dust particles are captured within the surface web of our *microvel*® media, minimizing blinding and maintaining stable airflow performance over time.

microvel® provides an optimal surface for controlled dust cake build up, is available in a wide range of constructions, and can be installed in all common filter equipment—giving customers a reliable, future-ready solution for cleaner air and improved operational efficiency.

microvel® is proven across a wide range of industrial applications, delivering reliable performance in demanding processes.

Manufactured in a broad selection of polymers and blends, *microvel*® can be precisely matched to the process conditions and performance requirements of each application. This flexibility enables customers to achieve consistent filtration efficiency, long service life, and dependable operation, even in the most challenging industrial environments.

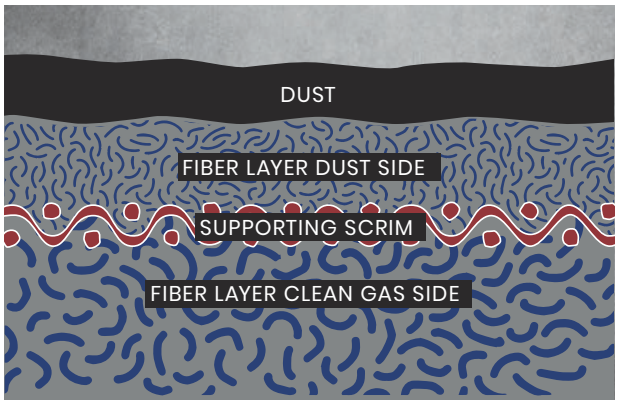
Advantages of *microvel*®

- Extremely low emission levels
- Very low pressure drop and very good cleanability
- High mechanical stability
- Problem free installation of filter bags
- Cost effective through increased lifetime.

Supported by the global capabilities of Alkegen, Lydall Gutsche enables customers to optimise filtration efficiency, meet strict environmental compliance, reduce downtime, and lower total cost of ownership.



microvel®–cross section



schematic needlefelt construction

microvel® industries & applications

- Drying
- Milling
- Cement production
- Metallurgical applications
- High-temperature combustion systems
- Timber
- Chemical

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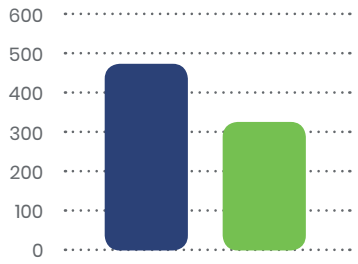
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microvel® Filter Test (VDI 3926/1)

Test parameters

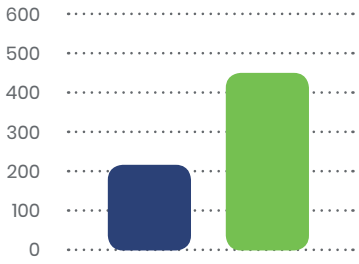
Test dust:	Pural NF	The VDI test shows the key advantages of the microvel® needlefelt construction: low residual pressure drop, long cycle times, low emissions and very good separation efficiency of fine dust (PM 2.5).
Dust load:	5 g/m³	
Filtration velocity:	2 m/min	

Residual pressure drop (Pa)



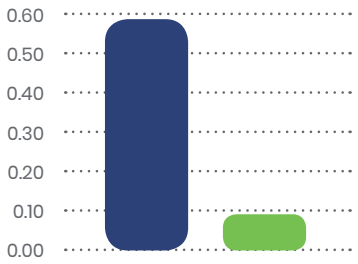
The low residual pressure drop shows high-efficiency cleaning.

Cycle time (seconds)



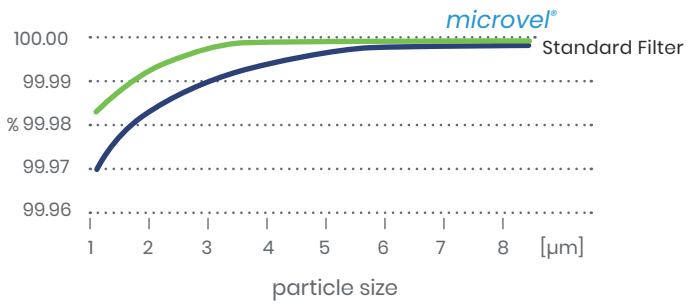
Long cleaning cycle times minimizes the mechanical stress and enables a long service life.

Emission (mg/m³)



Low emissions makes the material compatible with the most demanding requirements.

Filtration efficiency compared to particle size (in %)



Standard Filter

microvel®

Especially with the separation of the finest dust (PM 2.5) *microvel*® gives excellent results.

The following are registered trademarks of Lydall Gutsche, part of Alkegen: Gutsche® microvel®.

Product Information Sheets are periodically updated by Alkegen. Before relying on any data or other information in this Product Information Sheet, you should confirm that it is still current and has not been superseded. A Product Information Sheet that has been superseded may contain incorrect, obsolete and/or irrelevant data and other information.

Lydall Gutsche GmbH & Co. KG
Hermann-Muth-Straße 8
36039 Fulda
Germany
Website: www.alkegen.com
Email: info@alkegen.com

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