

NEXX
MADE WITH
EVOLON®

viledon®

VILEDON NEXX FILTER BAGS

**MAXIMUM PERFORMANCE
WITH INCREASED LIFETIME**

FREUDENBERG
FILTRATION TECHNOLOGIES

 **FREUDENBERG**
INNOVATING TOGETHER



INNOVATION

IN DUST REMOVAL TECHNOLOGY

Viledon® NEXX filter bags are the next generation of surface filters with outstanding advantages over traditional filters manufactured from needled felt: Viledon® NEXX is much lighter and tougher, lasts significantly longer, is more cost effective, with lower emission values. Only Viledon® NEXX applies the unique Evolon® technology.

Especially strong when it's dusty

Wherever high dust load occurs, Viledon® NEXX filter bags are just perfect: in the processing of sugar, plastics and chemical products, in steel mills, foundries, or in surface treatment processes. Viledon® NEXX demonstrates its outstanding qualities especially when it comes to recovering expensive products or any application that utilizes silo storage. The extra fine microfiber surface made from continuous filaments prevents the contamination of valuable recovered products.

NEXX
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Viledon® NEXX

Viledon® NEXX antistatic

REM image of
the Evolon® material

Evolon®

A unique structure featuring endless microfilaments that give the material its toughness and mechanical stability.

Minimized use of raw materials during production process saves resources.

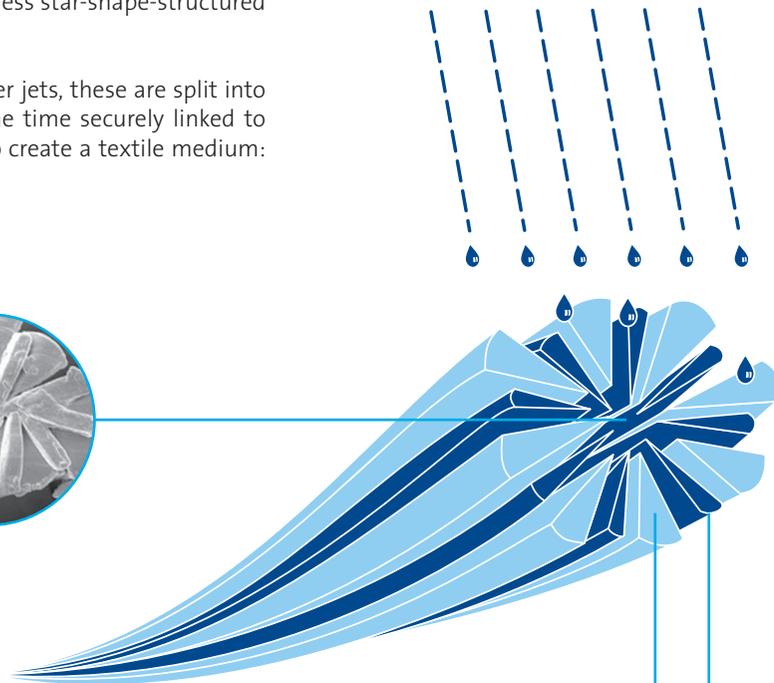


CLEAN TECHNOLOGY FOR SUSTAINABLE FILTER SOLUTIONS

Evolon®: the original

Evolon® is the basic medium used for Viledon® NEXX filter bags, which are also available with an antistatic, water- and oil-repellent finish. This patented textile material, made from microfilaments, is particularly well suited for the stringent requirements applying in dust removal. In a unique production process, endless star-shape-structured filaments are created.

By means of high-pressure water jets, these are split into microfilaments, but at the same time securely linked to each other and bonded so as to create a textile medium: Evolon®.



Microfilaments: 0.15 dtex

REASONS

FOR CHOOSING VILEDON NEXX FILTER BAGS

Original Evolon®

This high-quality filter medium exhibits unique characteristics for surface filtration.



Constant maximum performance with long service periods

Unlike traditional uncoated needle felt bags, there is virtually no dust penetration into the structure of the Viledon® NEXX filter material after the initial conditioning phase. The integrated microfiber layer creates a stable dust cake which prevents irreversible adhesion of dust particles inside the filter medium. The result is to create a stable operating condition and reduced resistance to flow. Continuous operation over long periods at minimum pressure loss becomes possible.

Long filtration cycles

Viledon® NEXX filter bags are sturdy and resilient, they are subject to lower mechanical stresses owing to lower operating pressure differential. This extends the filtration cycles and the cleaning intervals. Costs for maintenance and replacement are minimised and the consumption of expensive compressed air for pulse jet cleaning is reduced.

Trouble-free cleaning

The microfiber layer of a Viledon® NEXX filter bag ensures dust is easily removed from the surface of the filter media.

Low emissions

Viledon® NEXX can achieve clean gas values of $< 1 \text{ mg/m}^3$ continuously.

Lower energy costs

The optimised filtration performance leads to a reduced requirement for compressed air cleaning of the filter bags and the potential to minimise the consumption of electrical energy.

Simple handling: 50 % lighter than needled felt

Only 240 g in weight per square metre, the media offers high mechanical stability. This results in easy handling during filter bag installation and removal, even when the filter is contaminated with dust. Filter bags can be installed using any of the traditional methods used today, no special tools are required.

50 % fewer resources during manufacturing

When compared with needled felt, Viledon® NEXX uses roughly 50% fewer resources during manufacture and still results in higher filtration performance! You make an active contribution towards the environment and the sustainable use of resources.

Individual solutions

Viledon® NEXX is available in a wide range of sizes, lengths, and shapes as well as in several mounting and closed end configurations. The innovative NEXX filter medium is also available to buy as a roll: antistatic (grey-black screen raster print) or standard design (grey).

Ambient air recirculation

After Viledon® NEXX a second filter stage with static filters can be installed to separate harmful dusts with required very low workplace concentrations or carcinogenic dusts and to permit air recirculation into the workplace. Hence, heating costs can be kept low, particularly in winter.

Special requirements

Viledon® NEXX filter bags can be pre-coated according to your requirements, e.g. with FHM 1500 for sticky dust types or with lime for oily dust types.





Endurance test passed

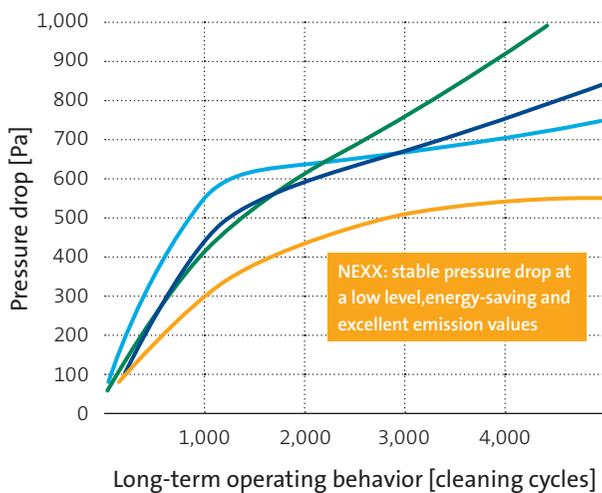
Viledon® NEXX filter bags have already been successfully employed for the separation of inorganic (powder coating) pigment dusts. To create the best surface finish, the (powder coating) pigment industry aims to manufacture pigments with the smallest possible particle diameters. The particle size distributions of the pigments are predominantly in the nm range. This type of dust does not create a suitable dust cake for sur-

face filtration. For a filter medium to work effectively on this application it is necessary to have extremely fine fibers and pores like that exhibited by Viledon® NEXX filter media.

Viledon® NEXX filter bags are also manufactured without the use of silicone and are thus suitable for the recovery of powder coating pigments used in the automobile industry.

Characteristics of different bag filter media in long-term operating behavior as per VDI 3926

Test dust: TiO₂, air-to-cloth ratio (ACR) = 3.1 m/min



NEXX: stable pressure drop at a low level, energy-saving and excellent emission values

- 500 g/m² Needlefelt
- 550 g/m² Needlefelt
- Needlefelt + PTFE
- NEXX

Alongside NEXX as FE 2931 and NEXX FE 2932, the product range includes filter media NEXX as FE 2933 and NEXX FE 2934 with water- and oil-repellent finish.



Freudenberg Filtration Technologies SE & Co. KG
69465 Weinheim, Germany
Phone +49 (0) 6201 80-6264 | Fax +49 (0) 6201 88-6299
viledon@freudenberg-filter.com | www.freudenberg-filter.com

