Viledon NanoPleat filters with our new HSN technology ...

Viledon NanoPleat filters set new standards for indoor climate control. The reason? Hybrid-synthetic nanofibers, or HSNs for short! These innovative hybrid-synthetic nanofiber nonwoven media constitute the heart of our uniquely efficacious fine-filters.

Viledon NanoPleat filters have been developed specifically for intake, exhaust and recirculated air filtration in HVAC systems posing stringent requirements for clean air quality and cost efficiency. Their superlative performance marries reliable fine-filtration with exceptionally energy-saving operating behaviour and longevity. So they ensure clean, efficiently conditioned air

- **in office buildings, production halls, airports, libraries, museums, laboratories, hospitals, old people's homes and care facilities, etc.**
- **in sensitive applications for the food and beverage industries, pharmaceuticals, chemicals, optics, electronics, and in operating theatres and intensive-care units, etc.**

Thanks to our in-house research, development and production, we are continually progressing the performance characteristics and qualitative excellence of our Viledon filters, and are setting new standards in terms of innovative, up-to-the-future design ideas. The most recent example of our pioneering work is our Viledon NanoPleat filters – try them and see!

... keep their promises.

Our representative in your vicinity:

Freudenberg Vliesstoffe KG · Filter Division
D - 69465 Weinheim
Tel. +49 6201/80-6264 · Fax +49 6201/88-6299
Email: filter-service@freudenberg-nw.com
www.viledon-filter.com

Freudenberg

Efficient energy-savers for indoor climate control

viledon®

Viledon NanoPleat filters featuring innovative HSN technology

A quantum leap in air filtration!

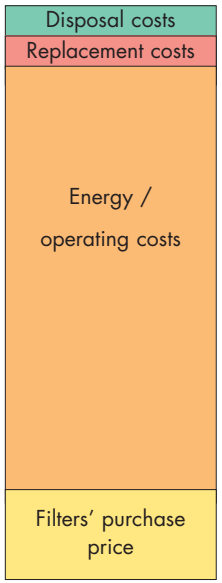
Freudenberg

Air filtration in indoor climate control

Indoor climate control (HVAC) systems are an important part of building services engineering in commercial and production facilities, office and conference rooms, and in certain areas of hospitals. Their task is to provide the requisite air supply for workplaces and production processes in the specified quantity and quality at all times. Modern-day indoor climate control systems have to meet increasingly stringent stipulations in terms of hygiene, low energy consumption and compact dimensions.

Crucial selection criteria for air filters

The filter class is the first and most important selection criterion for air filters in indoor climate control. Besides the requisite arrestance efficacy, the dust holding capacity and the pressure drop (progression) also play vital roles in determining a filter's cost-efficiency. Choosing suitable air filters involves finding the optimum combination of specified performance and minimized overall costs. Cheaper air filters, for instance, may in fact end up costing their owners significantly more in terms of operating costs, due to their operational characteristics (higher pressure drops, shorter useful lifetimes) than will the Viledon filters with their optimized technical properties.



Average total costs

Outstanding advantages

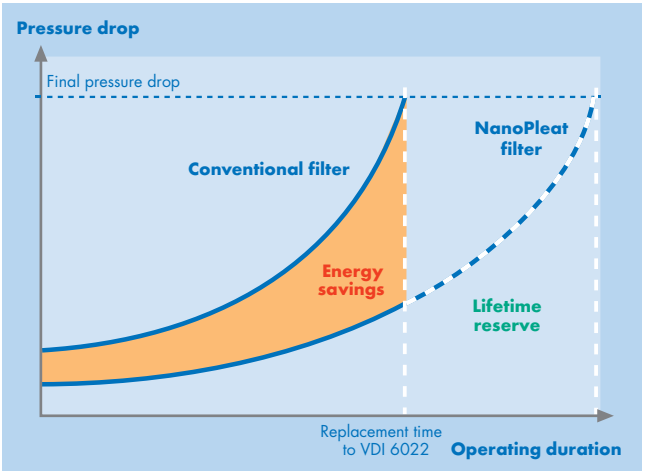
The new Viledon NanoPleat fine-filters incorporate the quintessential virtues derived from our long decades of experience and innovative vigor in the field of filter design. The **HSN** technology developed by Freudenberg has here created a unique combination of advantages:

Consistently high arrestance efficacy under all operating conditions

thanks to the unique **H**ybrid-**S**ynthetic **N**anofiber nonwoven media in the fine-filter classes F 6 to F 9 as defined in EN 779.

High cost-efficiency

The exceptionally low pressure drop and the high dust holding capacity offer ultra-efficient, energy-saving operating characteristics, with a slow increase in the pressure drop and resultant additional lifetime reserves. Since the energy consumption causes by far the largest portion of the overall costs, the significant energy savings produce a correspondingly high reduction in the total costs involved.



Ultra-durable construction

The exceptional sturdiness of the pleated HSN filter media, which are fixed by leakproof casting in a high-strength plastic frame, provides maximized operational dependability and easy handling during installation, thanks to a minimized risk of damage.
Viledon NanoPleat filters also excel in terms of their high resistance to chemicals and moisture (up to 100% rel. humidity) and are corrosion-proof.

Optimized hygiene

Viledon NanoPleat filters are microbiologically inert and satisfy all the hygiene requirements laid down in the German VDI Guideline 6022 and EN 13779. Their microbial safety has been confirmed by the Institute for Air Hygiene in Berlin.

Eco-friendliness

The entire filter element is free of metals, halogens and glassfibers. It is also fully incinerable; meaning it burns leaving almost no residues behind, and can thus be easily disposed of with minimal environmental impact.

Maximized security against particle or fiber shedding

The sturdy construction ensures optimum performance even under turbulent flow conditions or during load changes. This means that the risk of particle or fiber shedding is practically eliminated. In other words, the filter medium does not release any fibers, and any particles arrested remain where they belong: inside the filter.