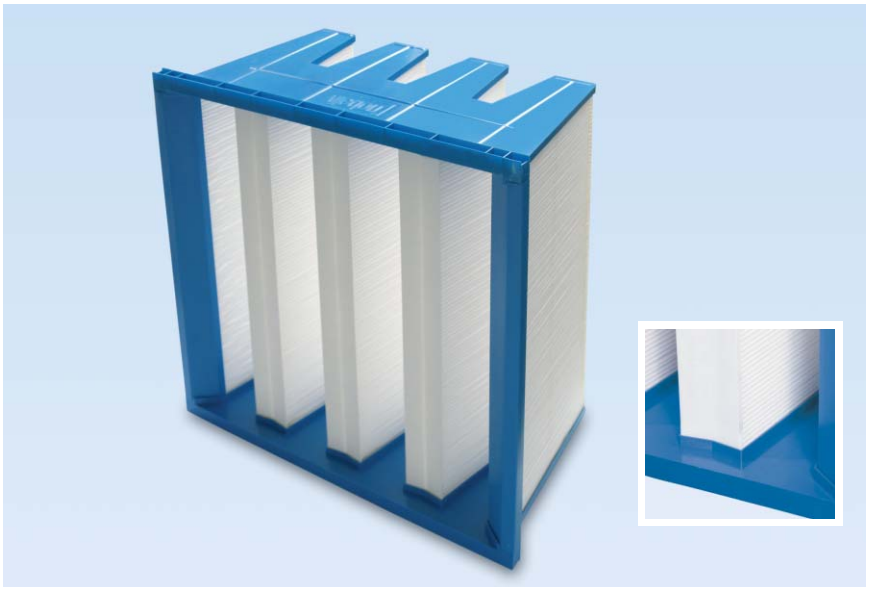
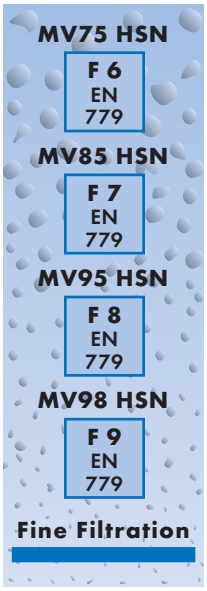
Efficient energy-savers for indoor climate control: NanoPleat filters with innovative HSN technology Filter classes F 6 – F 9

A quantum leap in air filtration!

viledon®





The innovation

The new Viledon NanoPleat cassette filters incorporate the quintessential virtues derived from our long decades of experience and innovative vigor in the field of filter design. The result: they set new standards for indoor climate control! The reason for that is our newly developed **HSN** technology: the innovative **H**ybrid-**S**ynthetic **N**anofiber nonwoven media constitute the heart of our uniquely efficacious fine-filters and offer a particular combination of advantages.

The application

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 profile marries dependable 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.

The special features and benefits

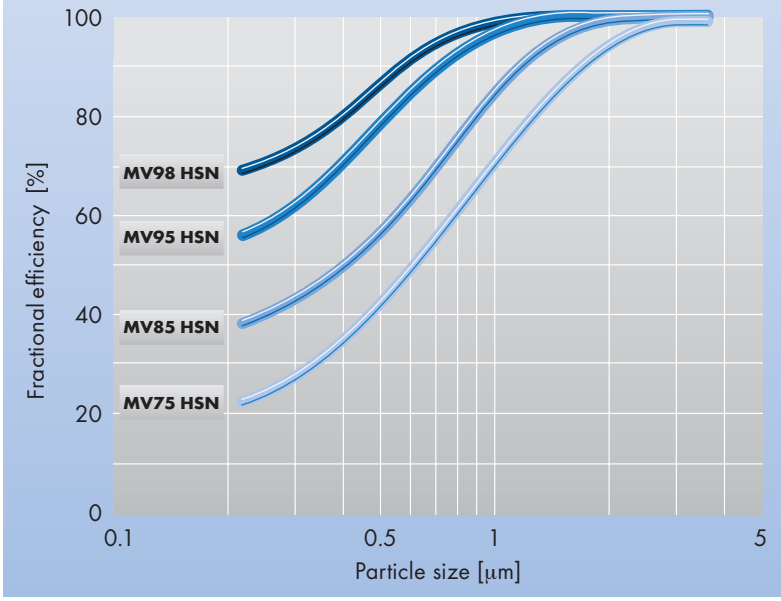
- **Consistently high arrestance efficacy under all operating conditions** thanks to the unique hybrid-synthetic nanofiber nonwoven media.
- The **exceptionally low pressure drop** and the **high dust holding capacity** provide **ultra-efficient, energy-saving operating characteristics,** with a slow increase in the pressure drop and resultant additional lifetime reserves. This produces a significant reduction in **operating costs.**
- The **patented offset of the pleat packs** allows full utilization of a prefilter's filtering area, thus effecting a **lower pressure drop and longer lifetime of the prefilter.**
- The **exceptional sturdiness** of the pleated HSN filter media, which are fixed by **leakproof casting in a high-strength plastic frame,** assures **maximized operational dependability** and **easy handling** during installation, thanks to a minimized risk of damage.
- Viledon NanoPleat filters are **highly resistant to chemicals, moisture-resistant** up to 100% rel. humidity, **microbiologically inert** and **meet all hygiene requirements for HVAC systems to EN 13779 and the German VDI Guideline 6022.** Their **microbial safety** has been confirmed by the Institute for Air Hygiene in Berlin.
- 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.
- The filter elements are free of metals, halogens and glassfibers, **corrosion-proof** and also **fully incinerable** and thus disposal-friendly. The frame and filter media are **self-extinguishing** to DIN 53438 (Fire Class F1).

Freudenberg

Technical filter data

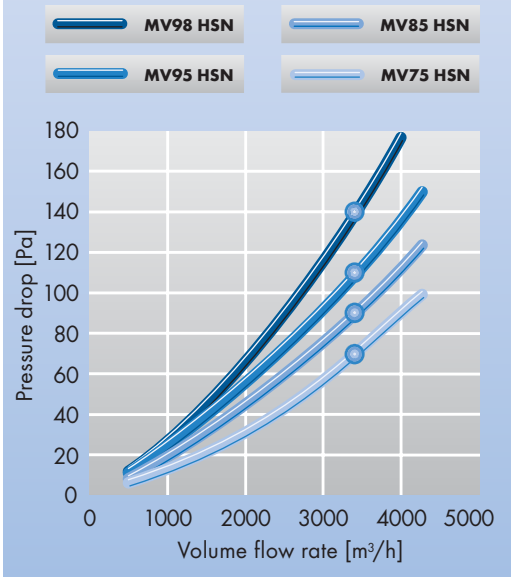
Initial fractional collection efficiency

plotted against particle size at nominal air flow rate



Initial pressure drop curves

Nominal air flow rate



Filter key data		MV75 HSN	MV85 HSN	MV95 HSN	MV98 HSN
Filter class to EN 779		F6	F7	F8	F9
Nominal air flow rate	m³/h	3400	3400	3400	3400
Initial pressure drop	Pa	70	90	110	140
Average efficiency (0.4 µm)	%	75	85	93	96
Initial efficiency (0.4 µm)	%	35	50	70	80
Initial efficiency (0.4 µm) after treatment to EN 779, Annex A	%	35	50	70	80

Available geometries		1/1	5/6	1/2
Nominal air flow rate	m³/h	3400	2700	1500
Front frame	mm	592 x 592 x 25	490 x 592 x 25	287 x 592 x 25
Depth	mm	318	318	318
Weight, approx.	kg	3.5	3	2.5
Thermal stability / temporary peaks	°C	70 80	70 80	70 80

The figures given are mean values subject to tolerances due to the normal production fluctuations. Our explicit written confirmation is always required for the correctness and applicability of the information involved in any particular case.

Subject to technical alterations.

You will find instructions on how to handle and dispose of loaded filters in our information on product safety and eco-compatibility.

Freudenberg Filtration Technologies KG
69465 Weinheim/Germany
Tel. +49 (0) 6201/80-6264 | Fax +49 (0) 6201/88-6299
viledon@freudenberg-filter.com | www.viledon-filter.com

LR 086 July 2006 • Replaces all previous issues of this data sheet • Printed on paper bleached without chlorine.