

Freudenberg – Your globally expert partner for air filtration and dust removal



The Freudenberg Group of companies can look back on a long history of more than 150 years. During this period, it has evolved from a leather tannery into a highly diversified, globally operating technology corporation, which with an annual turnover of 4.4 billion euros and a workforce of more than 32,000 people worldwide ranks among the 100 largest companies in Germany. Freudenberg is represented in 53 different countries with its sales and production companies. The multifaceted product portfolio, including Simrit® Simmerings, Vileda® household products, Vilene® interlinings, Viledon® nonwovens, Klüber® specialty lubricants, Nora® building systems and many, many more, is living proof of this global player's innovative vigor.

After nonwovens had been invented in 1936, Freudenberg developed into the world's largest manufacturer of nonwovens, marketed under the brand name Viledon and featured in innumerable technical applications. Innovative products, developed in Freudenberg's own research and development laboratories, backed up by an acknowledgedly insightful involvement in all important European standardization bodies for air filtration, have ever since formed the basis for Viledon air filters' technological market leadership.

Worldwide experience in ventilation and HVAC applications, in the automotive industry, in the chemical and pharmaceutical sectors, in power plants and in solving problems involving environmental protection for all fields of industry, plus intake air filtration in hospitals and administrative buildings, all combine to underline the leading role Viledon products are playing in filtration technology.

What many customers all over the world have come to appreciate is not only Freudenberg's global sales and production presence but also the expert, on-the-spot applications-engineering advice and the relevant measuring services.

Viledon air filters, from Filter Class G2 to H14, are produced in our own plants. A quality and eco-management system, certified under ISO 9001 and ISO 14001, assures our customers of products manufactured to the highest standards of quality and performance.

viledon®



Reg. No. 1420

Freudenberg Vliesstoffe KG
Filter Division
Weinheim/Germany



Freudenberg

Viledon filter mats and pocket filters – A breath of fresh air in every dimension



Viledon filter mats	
G2	PSB/145 S P15/150 S
G3	PSB/275 S P15/350 S
G4	PSB/290 S P15/500 S
F5	A3/300 S PA/500-10 PA/560 G-10
F6	PA – 5 micron

- ▶ Roll width 2 m
- ▶ Cut pieces in any desired size

Viledon filter mats

- ▶ High-performance nonwovens produced in-house from synthetic-organic, break-resistant fibers
- ▶ Progressively structured, meaning the fiber layers increase in density towards the clean-air side
- ▶ Moisture-resistant up to 100% rel. humidity
- ▶ Thermally stable up to 100°C
- ▶ Eco-friendly recipe
- ▶ Available as rolls and cut pieces
- ▶ The PA ceiling filter mats for surface technology additionally possess an actively adhesive finish for maximized security against dust breakthrough.



Viledon Compact pocket filters		
	Type	Dimensions/mm (1/1 element)
G3	G 35 S	592x592x330
	G 35 SL	592x592x650
G4	F 45 S	592x592x330
	F 40	592x592x650
F5	F 50	592x592x650
F6	T 60	592x592x650
	MF70	
F7	T 90	592x592x650
	MF90	
F8	MF95	592x592x650

Undersizes 5/6, 1/2 and 1/4 available

Viledon pocket filters

- ▶ High-performance nonwovens with progressive and 3-layer structure, produced in-house from synthetic-organic fibers and microfibers
- ▶ Inherently stable filter pockets, leakfree edge-welded and foam-sealed into the PU front frame
- ▶ Welded-in, aerodynamic spacers
- ▶ Long useful lifetime, thanks to high dust storing capacity
- ▶ Non-corroding, 100% moisture-resistant, fully incinerable and microbiologically inert
- ▶ Thermally stable up to 70°C
- ▶ Low energy costs, thanks to low average pressure drops and full utilization of the filtering area.

Viledon Compact pocket filters have been designed to cope with ultra-tough requirements for cost-efficient and dependable operation. The foam-sealed filter pockets with aerodynamic spacers render these filters extremely well suited for coping with high loadings (nominal volume flow 4,250 m³/h) while also offering generous performance reserves in all of the critical application categories, such as chemical, pharmaceutical, metal-working, paint-finishing operations, in turbomachinery, etc.

Viledon Compact Eco pocket filters have been developed specifically for an air volume flow of 3,400 m³/h per filter unit customary in HVAC applications.

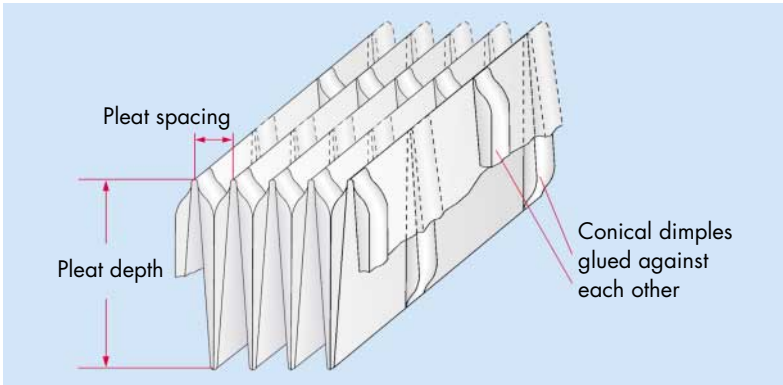


Viledon Compact Eco pocket filters		
	Type	Dimensions/mm (1/1 element)
G4	EP 45	592x592x510
F5	EP 50	592x592x650
		592x592x510
F7	EP 90	592x592x650
		592x592x510

Undersizes 5/6, 1/2 and 1/4 available, also with pocket lengths of 330 mm

Freudenberg also supplies complete mounting systems for pocket and cassette filters.

Viledon cassette filters – In a class of their own for technology and performance



- ▶ High-strength micro-glassfiber papers with a special thermoplastic bonding system
- ▶ Patented thermal pleating and embossing process creates precise, equidistant pleats
- ▶ Maximum, homogeneous air flow through the filter, thanks to V-shaped pleat geometry
- ▶ High stability and distortion-resistance, due to the patented plastic frame construction, ensures high operational dependability
- ▶ Microbiologically inert, moisture-resistant up to 100% rel. humidity.



Viledon MaxiPleat filters

	Type	Dimensions/mm (1/1 element)
F6	MX75	592x592x292
F7	MX85	592x592x292
F8	MX95	592x592x292
F9	MX98	592x592x292
H11	MX100	592x592x292
H12	MX120	592x592x292

Undersizes 5/6 and 1/2 plus plug-on prefilters available

Viledon MaxiPleat filters

- ▶ Low pressure drop, thanks to V-shaped pleat geometry and 250 mm pleat depth
- ▶ Long lifetime due to high dust storing capacity
- ▶ High degree of security against dust breakthrough
- ▶ Entire filter element is non-corroding, lightweight and easy to dispose of, as it is metal-free
- ▶ Easy to install, thanks to gripping lugs and protection grids on both sides
- ▶ Option for combining two MaxiPleat filters in one mounting frame by simple plug-on (modular system).



Viledon HEPA filters

	Type	OD*	PD*
H11	SF 11	78	50**
		150	100
		292	200
		292	280
H13	SF 13	78	50**
		150	100
		292	150
		292	200
		292	280
H14	SF 14	71	50**
		78	50**
		80	50**
		90	70**
		130	100**
		292	280

Numerous standard front dimensions, plus special dimensions in further geometries and filter classes available on request

*OD: Overall depth,
PD: Pleat depth

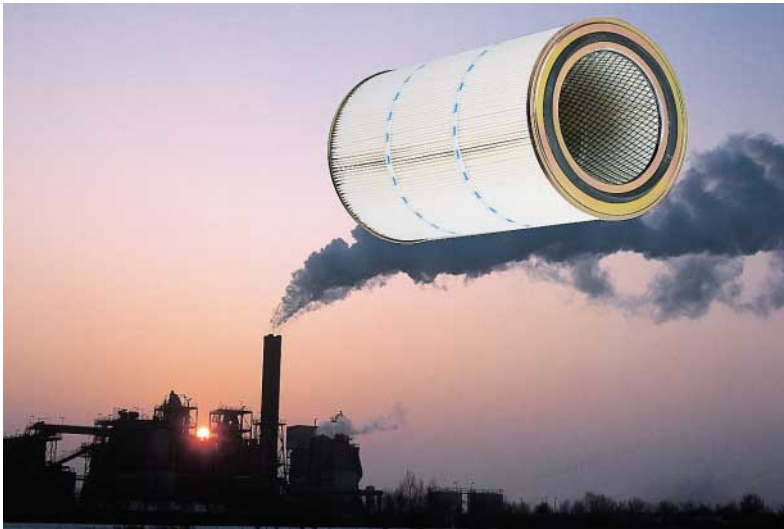
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Viledon HEPA filters

- ▶ Filter Classes H10 to H14 as per EN 1822
- ▶ Suitable for cleanrooms up to Class 2 (ISO 14644-1) and Class 0.1 (US Fed. Std. 209)
- ▶ Flow-optimized pleat geometry with pleat depths up to 280 mm ensures a low pressure drop and a laminar downstream air flow
- ▶ Standard frame construction: plastic, on request also galvanized steel sheeting or stainless steel sheeting; for Filter Class H14 a choice of plastic or anodized extruded aluminium
- ▶ Optimally tight fit, thanks to endlessly and homogeneously foamed-on PU seal
- ▶ Simple handling and installation
- ▶ All filter elements are microbiologically inert, very lightweight and easy to dispose of
- ▶ Special versions: protection grids (standard feature for many types), test channel and fluid-seal systems, hoods for single-flow configuration
- ▶ Quality assured by checking each individual filter, using state-of-the-art scan test equipment, or the oil mist test, as from Filter Class H13.

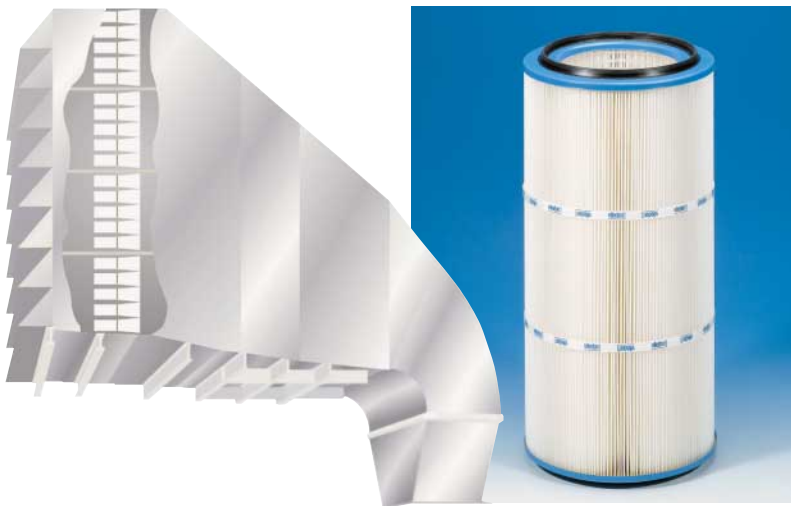


Viledon filter cartridges – Round and sound and versatile



Surface-loading cartridges for dust removal and intake air filtration of turbomachinery

- ▶ Very good arrestance even of particles $<1\ \mu\text{m}$ also at maximum dust concentrations
- ▶ High operational reliability, thanks to permanently stable PP or PES nonwoven filter media
- ▶ Can be regenerated, using all cleaning procedures in common use, like pulse-jet or rotary nozzle, and by washing
- ▶ Optimized cleanability with patented corrugated filter medium or PTFE coating
- ▶ Extraordinarily long useful lifetime coupled with low maintenance and servicing costs
- ▶ Numerous variants and versions, such as antistatic finish
- ▶ Moisture-resistant up to 100% rel. humidity.



Depth-loading cartridges for intake air filtration of turbomachinery on- and offshore

- ▶ Optimum alternative to cleanable filter cartridges for low dust concentrations and/or sticky dusts
- ▶ Progressive and 3-layer structuring of the nonwoven filter media provides a high filtering performance coupled with a low pressure drop and a high dust storing capacity
- ▶ 100% moisture-resistant and non-corroding
- ▶ High operational reliability even in moist-cold weather conditions since operational feedback has shown no ice clogging
- ▶ Regeneration not necessary – the cleaning system can be dispensed with.

Always there wherever you need us

Cooperating closely with can-do partners, Freudenberg also supplies complete intake air systems for turbomachinery, with the scope of delivery ranging from consultancy and engineering, production and start-up all the way through to documentation and after-sales service.

A closely-knit network of sales partners ensures optimum applications-engineering support for our customers – worldwide.

Our representative in your vicinity