

Efficient air filtration in cleanrooms

EPA filters with plastic frame

Filter class E 11



Filter class	Frame depth [mm]	Pleat depth [mm]	Standard dimensions [mm]	Gasket [mm]	Test standard
E 11	150	100	610x305	6	EN 1822
E 11	292	200 280	610x610 610x762	6	EN 1822



The application

Viledon® Efficient Particulate Air (EPA) filters of class E 11 are used for intake, exhaust and recirculating air filtration of ventilation systems with special requirements for clean air quality, such as

- in sophisticated air-conditioning applications (hospitals, labs, cleanrooms, museums, etc.)
- in sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food/beverages, micro-electronics, etc.)
- as downstream polishing filters in dust removal applications
- in the intake air filtration of turbomachinery

The special features and benefits

- **High-efficiency micro-glassfiber papers** with a special thermo-plastic bonding system are used as filter media.
- Our **patented thermal embossing technique** ensures the **optimum V-shaped geometry and equidistance** of the pleats, and therefore **maximum, homogeneous air passage** at a very low pressure drop. This results in a remarkably **economical and reliable operation**.
- The **frame** consists of **halogen-free plastic** and is **exceptionally distortion-resistant, moisture-resistant and fully incinerable**. Also available with a galvanized or stainless steel sheet frame on request.

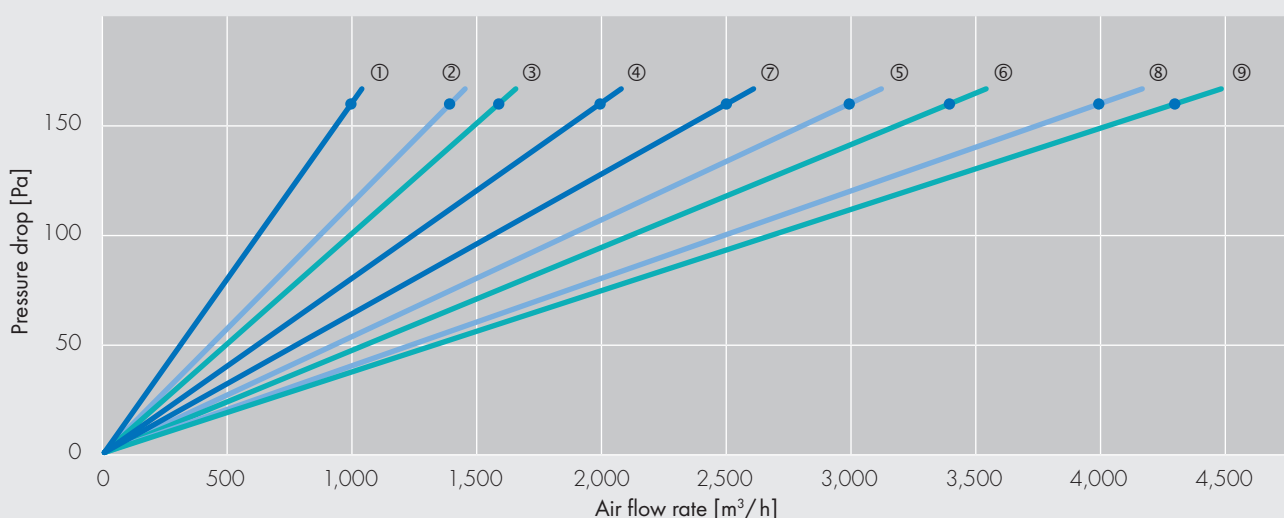
- The entire filter element is **non-corroding and easy to dispose of**, as it is metal-free.
- Protection grids on both sides minimize the risk of damage to the filter medium. **Plastic protection grids** on both sides for filters with 280 mm pleat depths, for filters with 100 and 200 mm pleat depths available upon request.
- **Easy handling and mounting**, thanks to exceptionally **low weight** and a continuous, homogeneously foamed-on polyurethane gasket.
- Viledon® Efficient Particulate Air (EPA) filters are **microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 "Hygiene requirements for HVAC systems and units"**.

Parameters		610x762	610x610	610x305
Frame depth	mm	150 292 292	150 292 292	150 292 292
Pleat depth	mm	100 200 280	100 200 280	100 200 280
Nominal volume flow rate	m³/h	2,500 4,000 4,300	2,000 3,000 3,400	1,000 1,400 1,600
Initial pressure drop	Pa	160	160	160
Arrestance efficiency MPPS*	%	≥95	≥95	≥95
Recommended final pressure drop**	Pa	600	600	600
Max. permissible pressure drop	Pa	3,000	3,000	3,000
Thermal stability	°C	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100

Technical filter test data to EN 1822

Initial pressure drop curves

Pleat depth 100 — Pleat depth 280 — Nominal air flow rate ●
Pleat depth 200 —



① 610 mm x 305 mm / Pleat depth 100 mm ④ 610 mm x 610 mm / Pleat depth 100 mm ⑦ 610 mm x 762 mm / Pleat depth 100 mm
 ② 610 mm x 305 mm / Pleat depth 200 mm ⑤ 610 mm x 610 mm / Pleat depth 200 mm ⑧ 610 mm x 762 mm / Pleat depth 200 mm
 ③ 610 mm x 305 mm / Pleat depth 280 mm ⑥ 610 mm x 610 mm / Pleat depth 280 mm ⑨ 610 mm x 762 mm / Pleat depth 280 mm

Item code of product line E 11

Example: SF 11 - K - 0610 x 0610 x 292 x 20 - N 1 0 N
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 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

- ① EPA filter class E 11
- ② Frame material:
K = halogen-free plastic
B = galvanized steel sheets
S = stainless steel sheets
- ③ Frame width [mm]: 4 digits
- ④ Frame length [mm]: 4 digits
- ⑤ Frame depth [mm]: 3 digits
- ⑥ Pleat depth [cm]: 2 digits
10 = 100 mm
20 = 200 mm
28 = 280 mm
- ⑦ Type of gasket:
N = PU semicircular profile gasket
W = flat seal

- ⑧ Position of gasket:
1 = one side
3 = both sides
- ⑨ Protection grid:
0 = without (only for 100 and 200 mm pleat depth)
3 = both sides / powdercoated metal mesh
4 = both sides / aluminium mesh
8 = both sides / halogen-free plastic
- ⑩ Execution:
N = standard
S = special version

* Most Penetrating Particle Size

** For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

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.

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