

# The PA duo: The professional filter mats for gleaming paintwork



Filter type	Filter class	Nominal media velocity [m/s]	Test standard	Migration test class
PA/500-10	M5	0.25	EN 779	S0
PA/560 G-10	M5	0.25	EN 779	S0



## The application

In surface treatment applications, the

- PA/500-10
- PA/560 G-10

filter mats are acknowledged as standard equipment. The main field of application for these fine filters is final intake air filtration in paint spray systems and booths.

## The media and their characteristic features

- The mats are made of **high performance nonwovens produced inhouse from elastic, break-resistant polyester fibers**. These nonwovens are thermally bonded and specially smoothed on the clean air side, in order to assure excellent fiber bonding. In addition, the fibers are specially processed to provide an **actively adhesive surface**.
- The filter media are **progressive in structure**, with layers of differing fiber diameters being arranged behind each other so as to

ensure that the density of the fiber layers increases towards the clean air side. This optimizes the defined filter performance and the dust holding capacity, resulting in **longer useful lifetime for the filter** concerned.

- Fire behaviour:** Viledon® filter media satisfy the stringent requirements of Fire class F1 according to DIN 53438 and are thus **self-extinguishing**.
- Certified quality:** PA filter mats have been **impartially type-tested** according to EN 779 and are manufactured under our certified quality management system to ISO 9001. This offers all users the reassuring certainty that all filters will be supplied in consistently high standardized quality, documented by marking the filter mat with brand name, type designation and filter class, as well as DIN mark of conformity plus model validation number for PA/560 G-10.

## The special features of the PA duo

- Both filter mats ensure **practically 100% arresntance of particles >10 µm** which might cause visually perceptible surface imperfections. This means maximized protection against paintwork defects for the user.
- The **actively adhesive surface of each individual fiber** of the filter media ensures permanent retention of particles already collected throughout the entire operating lifetime.
- PA filter mats qualify for **the highest "S0" class in the Viledon® migration test** acknowledged throughout the market. For further information, please consult our special brochure entitled "Surface Treatment Automotive".
- PA/560 G-10 additionally features a **reinforcing scrim on the clean air side**. This enhances the filter mat's stability and reduces the risk of damage to the clean air side during installation.
- PA filter mats are **resistant to solvent vapours** and contain **no silicone**.

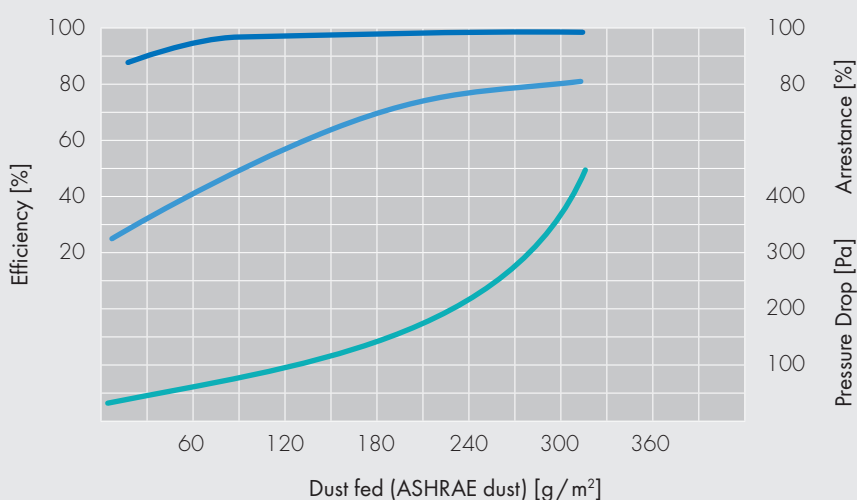
Geometries available		PA/500-10	PA/560 G-10
Weight, approx.	g/m <sup>2</sup>	500	580
Thickness, approx.	mm	25	25
Thermal stability	°C	up to 100 briefly up to 120	up to 100 briefly up to 120
Moisture-resistance (rel. hum.)	%	up to 100	up to 100
Supplied as rolls, useful width/length	mm/m	1600/18 2000/20	1600/20 2000/20 1600/22 2000/22
Supplied as cut pieces/rolls	mm	to customer's specification	

# Technical filter test data to EN 779

**Arrestance, efficiency and pressure drop**  
plotted against dust feed at nominal media velocity

Arrestance — Efficiency — Pressure drop —

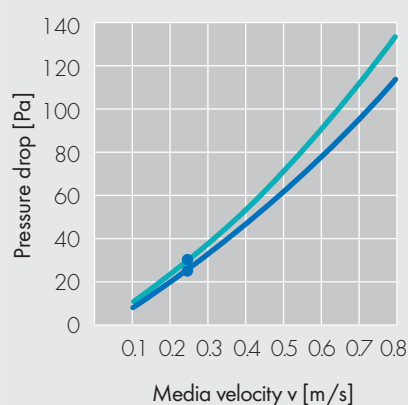
PA/560 G-10



**Pressure drop**  
plotted against the media velocity

Nominal media velocity ●  
PA/500-10 — PA/560 G-10 —

PA/500-10 and PA/560 G-10



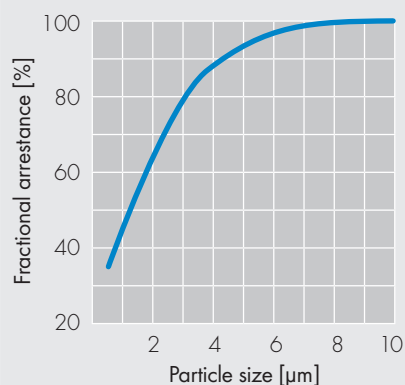
Key data			PA/500-10	PA/560 G-10
Effective filtering area of sample		m <sup>2</sup>	–	1
Average arrestance	A <sub>m</sub>	%	98	99
Average efficiency	E <sub>m</sub>	%	50	55
Nominal media velocity	●	m/s	0.25	0.25
Initial pressure drop		Pa	25	30
Final pressure drop*		Pa	450	450
Dust holding capacity		g/m <sup>2</sup>	300	300

The figures given are mean values subject to tolerances due to normal production fluctuations. Our explicit written confirmation is always required for the correctness and applicability of the information involved in any particular case. You will find instructions on how to handle and dispose of loaded filters in our information on product safety and eco-compatibility. Subject to technical alterations.

\*For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the final pressure drop stated.

**Fractional arrestance**  
plotted against the particle size

PA/500-10 and PA/560 G-10



**Test conditions:**

Media velocity: 0.25 m/s  
Test dust: limestone  
Dust concentration: approx. 10 mg/m<sup>3</sup>  
Measuring instrument: scattered-light particle counter

**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

