

FILTER MAT PA-5 MICRON



IN A CLASS OF ITS OWN
IN CEILING FILTRATION

FILTER TYPE	FILTER CLASS TO ISO 16890	FILTER CLASS TO EN 779:2012	MIGRATION TEST CLASS
PA-5 micron	ISO ePM10 65%	M6	S0



The application

The main field of application for the PA-5 micron filter mat is final intake air filtration in paint-spray processes involving particularly stringent requirements for air purity. As synthetic ceiling filter mat in Filter Class ISO ePM10 65%, it ensures practically 100% arrestance of particles $>5 \mu\text{m}$. The PA-5 micron thus meets even the toughest of quality stipulations in surface treatment technology.

The medium and its characteristic features

- The mat is made of high performance nonwoven produced in-house from elastic, non-breaking polyester fibers. This nonwoven is thermally bonded and specially smoothed on the clean air side, in order to achieve excellent fiber bonding. So as to ensure permanent retention of particles already collected throughout the entire operating lifetime, the fibers are in addition specially processed to give each individual fiber an actively adhesive surface.

- The filter medium is 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 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 self-extinguishing.
- Certified quality: PA-5 micron has been impartially type-tested to EN 779 and ISO 16890. This offers all users the reassuring certainty that all filters will be supplied in consistently high standardized quality, documented by marking the filter mat on clean air side with brand name, type designation, filter class, and DIN mark of conformity plus model validation number.

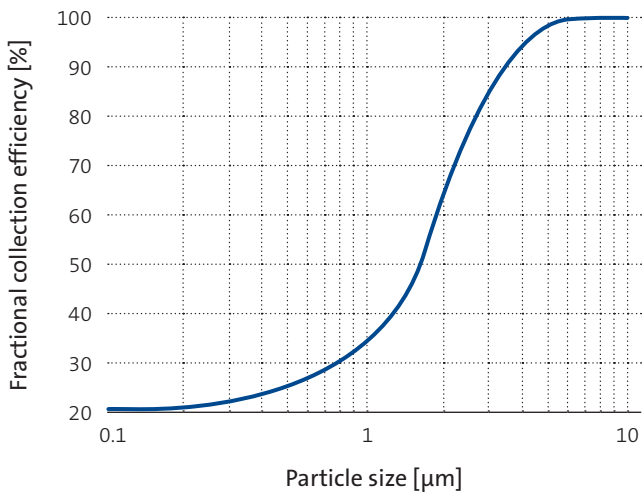
The special features of the PA-5 micron

- With the PA-5 micron, not only particles measuring $>10 \mu\text{m}$, but even those measuring $>5 \mu\text{m}$ are filtered out almost entirely. Thus the PA-5 micron ensures outstanding production dependability for the user in all sophisticated paint-spray processes.
- Due to the adhesive fiber surface, the PA-5 micron is able to permanently bond more than 3 kg/m^2 of freeflowing Aloxite dust.
- PA-5 exceeds the highest „S0“ class in the Viledon® migration test acknowledged throughout the market. For further information on this test, please consult our special „Surface Treatment“ brochure.
- The reinforcing scrim on the clean air side enhances the filter mat's stability and minimizes the risk of damage to the clean air side during installation.
- PA-5 micron is resistant to solvent vapours and contains no silicone.

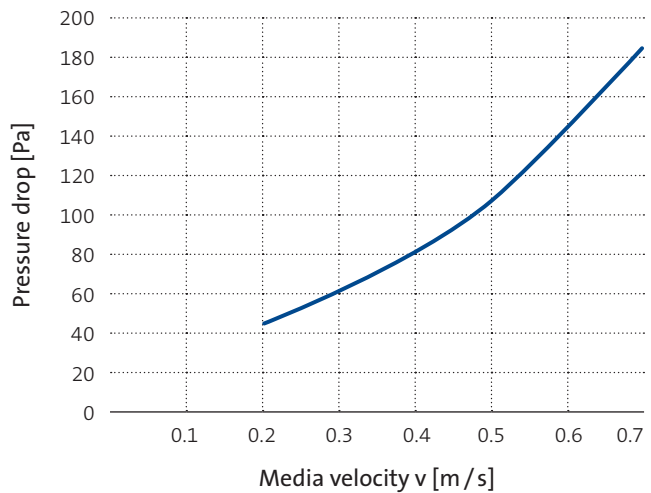
GEOMETRIES AVAILABLE		PA-5 MICRON
Nominal media velocity	m/s	0.25 – 0.5
Weight approx.	g/m ²	650
Thickness approx.	mm	25
Thermal stability	°C	up to 100, briefly up to 120
Moisture-resistance (rel. hum.)	%	bis 100
Supplied as rolls, useful width / length	mm / m	2,000 / 20
Supplied as cut pieces / rolls	mm	to customer's specification

TECHNICAL FILTER TEST DATA TO EN 779 AND ISO 16890

Fractional collection efficiency curve



Initial pressure drop curve



— PA-5 micron

Test conditions: Media velocity: 0.5 m/s, Test aerosol: DEHS, Measuring instrument: scattered-light particle counter

KEY DATA		PA-5 MICRON
Examination surface	m ²	1
Nominal media velocity	m/s	0.25 – 0.5
Initial pressure drop*	Pa	55
Class to ISO 16890**		ISO ePM10 65%
Particulate matter efficiency		
ISO ePM1		7
ISO ePM2,5	%	19
ISO ePM10		65
Cut-off particle size	µm	5
Filter class to EN 779:2012*		M6
Recom. final pressure drop***	Pa	250 – 300
Dust holding capacity approx. AC fine up to 300 Pa**	g/m ²	470

* Measured at 0.25 m/s

** Measured at 0.5 m/s

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