



## CUSTOMER INFORMATION

viledon®

### INCREASED TRANSPARENCY: EUROVENT CERTIFICATION FOR FINE FILTERS

Not all filter manufacturers are able to keep the promises they make for their products. It is not unusual to find features in their product information that are never achieved in reality.

There is a way you can protect yourself from that. As an independent, accredited institution, Eurovent Certita Certification operates an international certification program for fine filters that gives users confidence. Up until 2018, during which time the EN 779:2012 test standard relevant in Europe for fine filters was still valid, all fine filters were certified as belonging to groups M and F. Since December 2018, ISO 16890 has been the unreserved international test standard for fine filters. It replaced EN 779:2012 in July 2018. ISO 16890 evaluates and classifies fine filters according to their separation properties for the fine dust fractions  $PM_{10}$ ,  $PM_{2.5}$  and  $PM_1$ . In accordance with this, the certification program of Eurovent Certita Certification has also been adapted to classify filters according to ISO 16890.

Viledon® air filters are always tested and classified in accordance with the latest standards.

- ✓ DIN EN ISO 16890:2017-08
- ✓ DIN EN 1822:2011-01
- ✓ EUROVENT

#### International certification

Founded in 1993, Eurovent Certita Certification is known worldwide for ensuring correct and reliable product data for ventilation, air conditioning, heating and cooling equipment. In tests, fine filters are checked to see whether the information provided by the manufacturer is correct – in other words, to ensure that the filters actually deliver the performance levels promised by the manufacturer. To achieve this, Eurovent works in partnership with selected European test facilities that are specialized in the testing of air filters.

#### How the certification process works

All participating filter manufacturers make their entire range of fine filter products available to Eurovent Certita Certification. Eurovent then selects a number of filters at random and subjects them to standardized laboratory tests at regular intervals. If deviations between the test results and the data sheet specifications fall outside allowable tolerances, the manufacturer is required to modify the published values. In the event of severe or more frequent discrepancies, further penalties can be applied, up to exclusion of the manufacturer from the certification program itself.



Viledon® eMaxx cassette filter,  
Viledon® MaxiPleat cassette filter,  
Viledon® Compact pocket filter T60



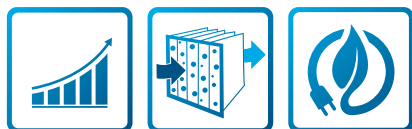
## HOW EUROVENT FINE FILTER CERTIFICATION WORKS

### Which filters will be certified?

Approved for certification testing are all air filter elements with a front frame dimension of 592 × 592 mm (according to EN 15805), which are classified by the manufacturer as fine filters with the efficiency classes ePM<sub>10</sub>, ePM<sub>2.5</sub> and ePM<sub>1</sub> according to the current ISO 16890. After passing the tests and obtaining the certifications, all of this manufacturer's filters are certified.

### Which properties and parameters are certified?

- Initial pressure drop ( $\Delta p_0$ ) in Pa measured according to EN ISO 16890.
- Mean efficiencies ePM<sub>1</sub>, ePM<sub>2.5</sub> and ePM<sub>10</sub> measured according to EN ISO 16890.
- Minimum collection efficiencies ePM<sub>1, min</sub> and ePM<sub>2.5, min</sub> measured according to EN ISO 16890.
- Annual energy consumption evaluated with an air volume flow of 3,400 m<sup>3</sup>/h (= 0.944 m<sup>3</sup>/s) according to Eurovent 4/21.
- Energy efficiency class evaluated with an air volume flow of 3,400 m<sup>3</sup>/h (= 0.944 m<sup>3</sup>/s) according to Eurovent 4/21.



### Who conducts the tests?

Three recognized, independent and accredited testing laboratories have been selected to conduct regular testing. These are "RISE Research Institutes of Sweden", "EUROFINS Expert Services" in Finland and "CETIAT Centre Technique des Industries Aerauliques et Thermiques" in France.

### How can I recognize whether a fine filter has Eurovent certification?

Simply look for the Eurovent logo and confirm the certification by checking the data on the Eurovent Certita Certification website.

### How can I find out more about Eurovent certification?

Simple: give us a call. We will be pleased to inform you about all the latest trends and themes surrounding filtration.

### A complete package

In addition to Eurovent certification, the Viledon® brand offers top quality and reliability in an all-inclusive package. This begins with the quality of our filters and the way they are manufactured, which lead to better filter performance and optimum durability.

You can expect the same high level of performance when it comes to our service as well. A unique feature is our integrated filterCair program, which combines complete air quality management with customer-specific, technical advice.

Through Viledon® Engineering, we also provide a complete design and installation program for the upgrading and construction of air-cleaning installations.

## VILEDON PROVIDES ADDED VALUE

The Viledon® brand combines top quality, excellent service and certified safety in a single integrated package. This is what our customers benefit from.

### Highest quality

The superior technology and high quality of both the filter materials we use and the way we process them result in measurable benefits. Typical features of Viledon® compact pocket filters for fine filtration include leak-free welded seams, the high rigidity of the filter bag and the prevention of fiber shedding. These qualities result in a long lifetime with outstanding operational values, including low pressure drop and high energy efficiency – as with all Viledon® filters. This is guaranteed by strict quality control in our filter-testing laboratory.

### Best service

Thanks to personal advice and individual solutions, we ensure that Viledon® filters in operation significantly reduce both costs and CO<sub>2</sub> emissions. With our filterCair service, we offer a comprehensive filter maintenance program plus service plus a guaranteed fixed price. This complete air quality management service is unique. Viledon® Engineering, our development and installation program for the retrofit and new construction of filter houses, also provides excellent service.

### Certified safety

You can rely on our guaranteed quality. Freudenberg Filtration Technologies is certified to the latest version of DIN EN ISO 9001 by the “Deutsche Gesellschaft zur Zertifizierung von Managementsystemen mbH” (DQS). Our overall integral management system is based on the current regulations ISO/TS 16949 (requirements of the automotive industry), DIN EN ISO 14001 (environmental protection management) and DIN ISO 45001 (formerly OHSAS 18001) for health and safety. Six Sigma is an integral part of our corporate culture.



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