

Certified air filters

– for industrial air purifiers

NJORD

www.njordcleanair.com
info@njordcleanair.com

Certified filters for all your needs

Swedish-made and certified quality filters that guarantee the separation efficiency over time.

Our filters capture all types of particles in all particle sizes, from pollen, fine dust, mold spores and dust mite allergens to viruses, bacteria, smoke and combustion particles.

We offer all types of filters up to filter category HEPA 14. All filters are certified according to ISO 16890 or EN 1822 and manufactured in Sweden by SC Luftfilter.



Climate-smart filters manufactured in Sweden – the best choice for performance and the environment.

Flexibility and optimum separation efficiency with two-stage filtering

Our air purifiers offer two-stage filtering. This means that all the air intakes on our air purifiers can be fitted with double filters for ultimate flexibility and high-efficiency air purification, no matter what your air purification needs are.

The first filter of each air intake is designed to filter out as much dust as possible, especially larger particles. The second filter captures the very smallest particles which pose the biggest risk to people.



Highly effective quality filters up to filter category HEPA 14.



All filters certified according to ISO 16890 or EN1822.



Captures up to 99.995% of air-borne bacteria and viruses.



Filter combos tailored to specific needs.



Our industrial air filters capture particles of all shapes and sizes < 1µm.

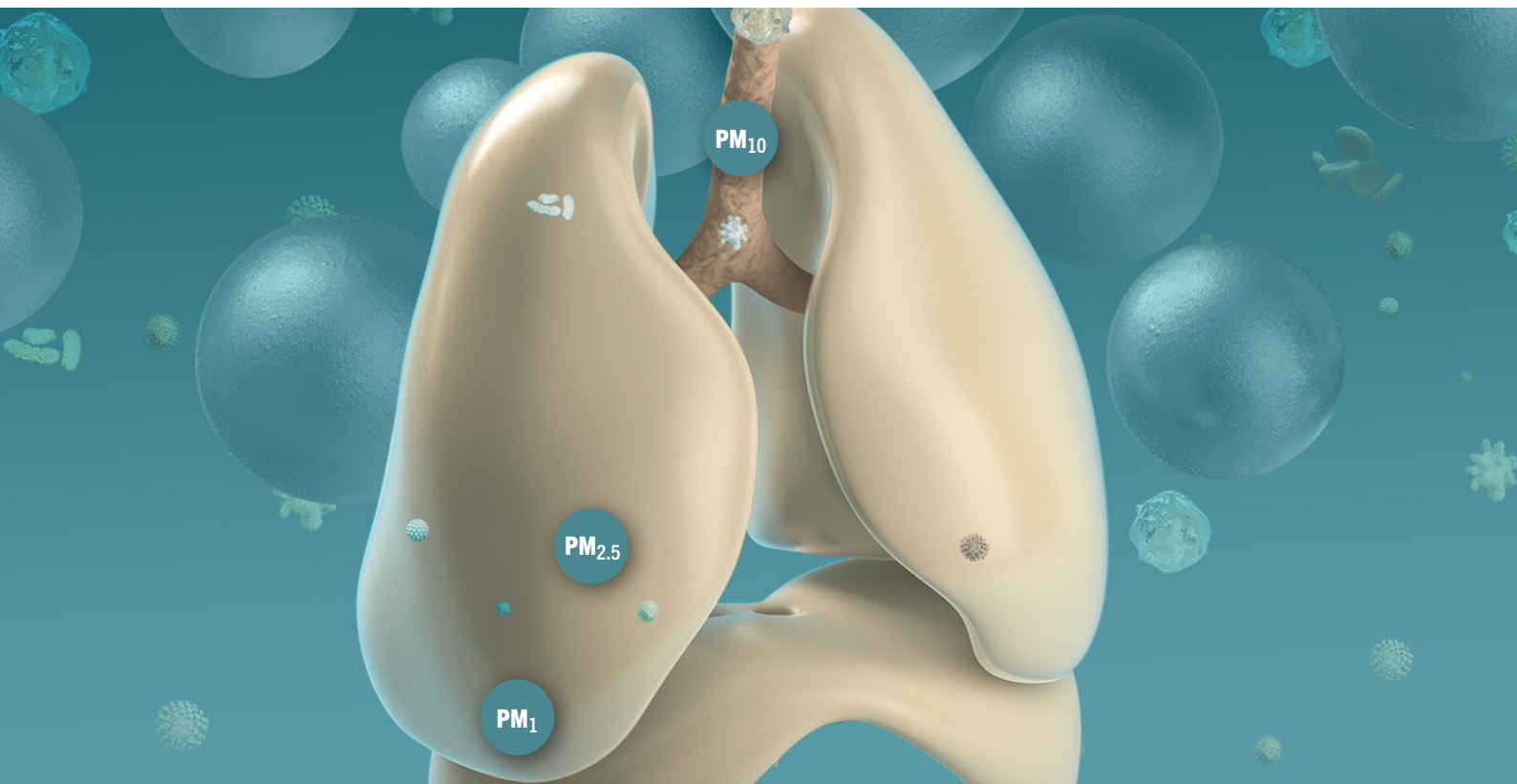


Made in Sweden.

Clean air is vital for our wellbeing

The air we breathe is full of particles, bacteria and viruses, many of which affect our well-being and health. Particles such as dust, pollen, mold spores and bacteria can affect lung function, cause skin problems, asthma and allergies. The smaller the particles, the more

dangerous they are to inhale because they can penetrate deep into the lungs, further into the bloodstream and damage various organs. Regular exposure to such particles can have significant negative health effects and cause cancer and cardiovascular disease.



PM₁₀

Pollen, fine dust and larger organic particles etc.

Particles with a diameter of 10 μm or less can reach our airways and cause reduced lung function and problems with allergies.

PM_{2.5}

Mould spores, bacteria, ash and dust mite allergens etc.

Particles with a diameter of 2.5 μm or less can get deep into our lungs and cause reduced lung function, skin issues, allergies and problems with our eyes.

PM₁

Viruses, bacteria, smoke and combustion particles etc.

Particles with a diameter of 1 μm or less are the most dangerous. They are small enough to enter our bloodstream and cause cancer, cardiovascular issues and dementia.



ePM₁
90%
ISO 16890



Bag filter ePM₁ 90%

Bag filter with media of glass fibre and wood composite frame is a well-tested, recyclable and cost-effective air filter. The filter is made with conical bags which gives optimum air flow, an even distribution of the dust and maximum utilization of filter media. This ensures long service life and low pressure drop for the filter class and thereby low energy consumption.



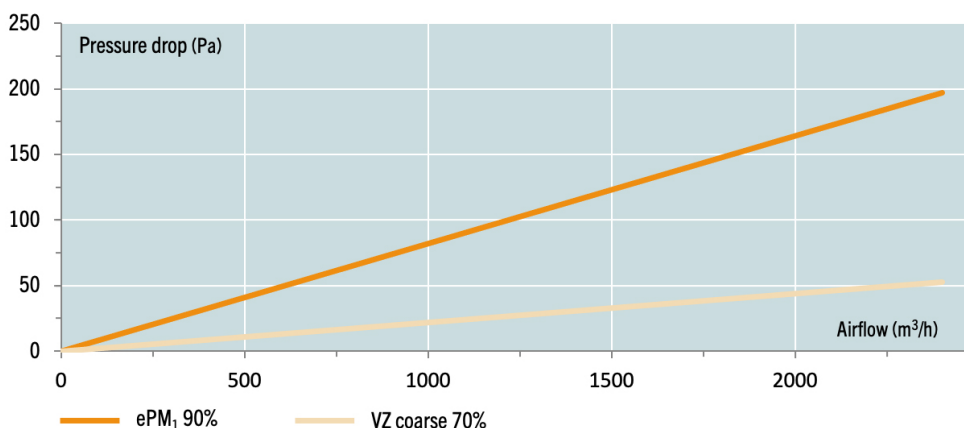
Applications:	Supply and/or exhaust air filters for ventilation and climate installations with very high demands on air quality, as well as pre-filters for clean rooms and chemical filters. Standard for Njord air purification units, Njord XP-2 and Njord XP-4.
Frame:	25mm wood composite – Hoku® (hygiene approved according to DIN EN ISO 846)
Filter media:	Microglass fiber
Filter class:	ePM ₁ 90% according to ISO 16890
Temp./Humidity:	70°C / 100% RH
Max airflow:	+/- 25% of nominal airflow
Final pressure drop:	250 Pa for best economy (tested to 300 Pa)
Environment:	Fully recyclable by combustion
Other:	The filters are delivered in environmentally friendly resealable box with practical carrying handle. Respiratory mask and return plastic bag are available on request.

ePM ₁	ePM _{2,5}	ePM ₁₀	Initial pressure drop (Pa)	Dust holding capacity (at 300 Pa)	Energy consumption (kWh/year)
90%	90%	97%	129	887g	1582

Test results for filter 592x592x635 / 10 (according to ISO 16890)

Dims. (BxDxH mm)	Number of pockets	Filter area (m ²)	Weight (kg)	Airflow (m ³ /h)	Pressure drop* (Pa)
795x490x290	12	3,7	1,2	1500	123

*Calculated pressure drop.



1582 kWh/year
Energy class C ePM₁
Tested at Interfil
ref. 00 01 46 32

coarse
70%
ISO 16890



Bag filter VZ coarse 70%

A cost effective bag filter with synthetic filter media and wood composite frame - developed for the toughest applications. The filter is made with conical bags which gives optimum air flow, an even distribution of the dust and maximum utilization of filter media. This ensures long service life, low pressure drop and thereby low energy consumption.



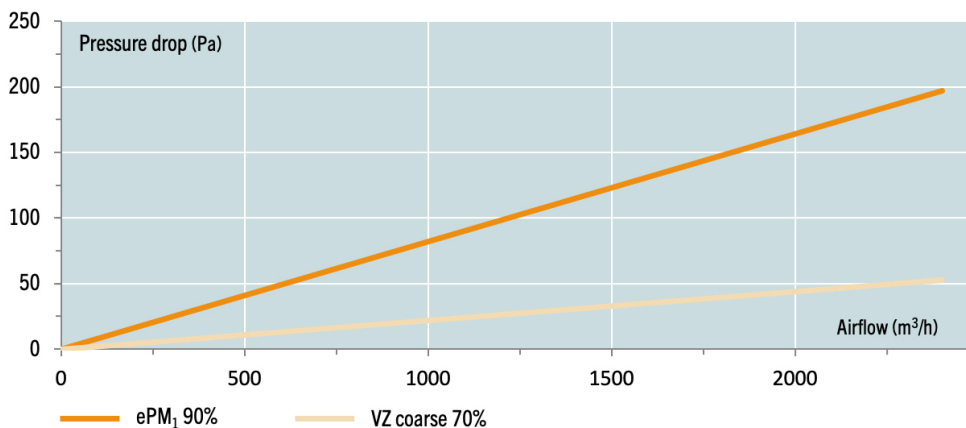
Applications:	Filters with extremely high dust holding capacity are used e.g. for the separation of welding fumes in exhaust air systems. Option for units Njord XP-2 and Njord XP-4.
Frame:	25mm wood composite – Hoku® (hygiene approved according to DIN EN ISO 846)
Filter media:	Synthetic filter media
Filter class:	coarse 70% according to ISO 16890
Temp./Humidity:	70°C / 100% RH
Max airflow:	+/- 25% of nominal airflow
Final pressure drop:	200 Pa for best economy (tested to 200 Pa)
Environment:	Fully recyclable by combustion
Other:	The filters are delivered in environmentally friendly resealable box with practical carrying handle. Respiratory mask and return plastic bag are available on request.

ePM ₁	ePM _{2.5}	ePM ₁₀	ISO coarse	Initial pressure drop (Pa)	Dust holding capacity (at 300 Pa)
3%	9%	38%	70%	47	2556g

Test results for filter 592x592x635 /6.

Dims. (BxDxH mm)	Number of pockets	Filter area (m ²)	Weight (kg)	Airflow (m ³ /h)	Pressure drop* (Pa)
795x490x290	10	3,2	1,5	1500	33

*Calculated pressure drop.



coarse
70%
ISO 16890



Glass panel coarse 70%

Panel filters with glass fibre media are available in a variety of designs. The filters are characterized by low pressure drops with a high degree of weight separation, compact design and is completely recyclable through combustion. The frame is made of moisture-resistant cardboard or plastic. The filter can be provided with adhesive or dry fiberglass media.



Applications:	Pre-filter for ventilation and climate installations as well as various industrial applications. Used to eliminate the coarsest particles. Standard for Njord air purification units, Njord XP-2 and Njord XP-4.
Frame:	Moisture resistant cardboard frame (also available with plastic frame, PP)
Filter media:	Fibreglass
Filter class:	coarse 70% according to ISO 16890
Temp./Humidity:	70°C / 85% RH (filter with plastic frame 100% RH)
Max airflow:	+/- 25% of nominal airflow
Final pressure drop:	130 Pa for best economy
Environment:	Fully recyclable by combustion
Other:	The filters are delivered in environmentally friendly resealable box with practical carrying handle. Respiratory mask and return plastic bag are available on request.

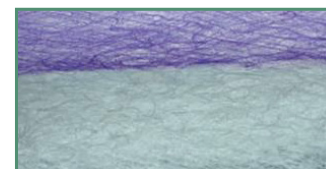
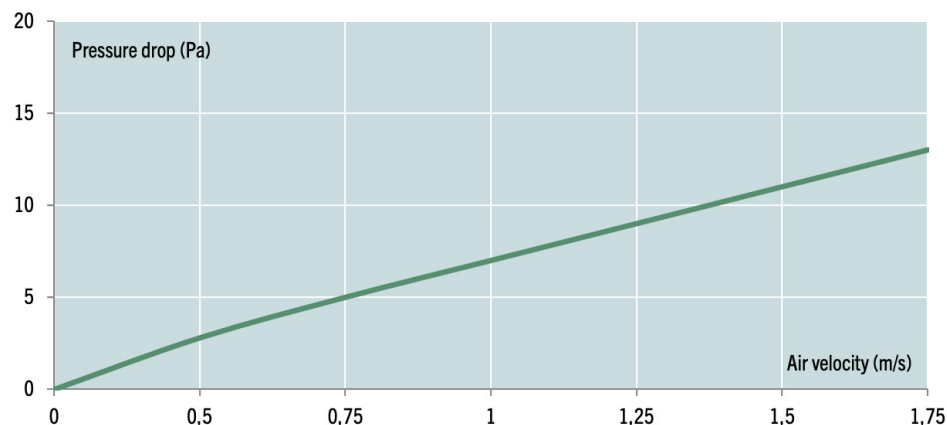
Dims. (BxDxH mm)	ISO 16890	Front area (m ²)	Weight (kg)	Airflow (m ³ /h)	Pressure drop* (Pa)
795x490x45	coarse 70%	0,39	0,5	1500	23

*Calculated pressure drop.

Hydropaint (filter media)

Thickness (mm/3")	Weight (g/m ²)	Efficiency*	Air velocity (m/s)	Pressure drop (Pa)	Max temperature (°C)
75	300	98,5%	0,75	5	≤ 120

*Based on internal test with waterborne paint particles (16-18 μm)



ISO 16980 – a new international standard

ISO 16890 is a new test standard for air filters that will replace both EN779:2012 used in Europe and ASHRAE 52. (USA and Asia).

Differences between ISO 16890 and EN779: 2012

- The new standard related filter performance against 3 different particle sizes in the range of 0.3 μm -10 μm .
- According to EN779: 2012, the filter's performance is determined solely based on the particle size 0.4 μm .
- According to ISO 16890, the entire filter must be placed in a chamber and subjected to isopropanol vapor for electrostatic discharge, instead of only a small part of the filter media according to EN779: 2012.
- ISO 16890 is much more like real conditions for filter performance which makes it easier to choose filters based on need / application.

Simply put, the new standard will show how effective a filter is at filtering out different types of particle sizes, while EN779:2012 only classifies filters according to a minimum requirement for the lowest purification effect with respect to one specific particle size.

We test our filters (ePM1 – ePM10) according to the new standard ISO 16890 at RISE Research Institutes of Sweden AB (formerly SP). Contact us if you want to take part in test protocols, energy classification and data sheets.

Filters are classified as **ePM1**, **ePM2.5**, or **ePM10** + a percentage from 50% to 95% rounded down to the nearest 5%.

The filter must achieve at least 50% separation before and after discharge to belong to a specific group.

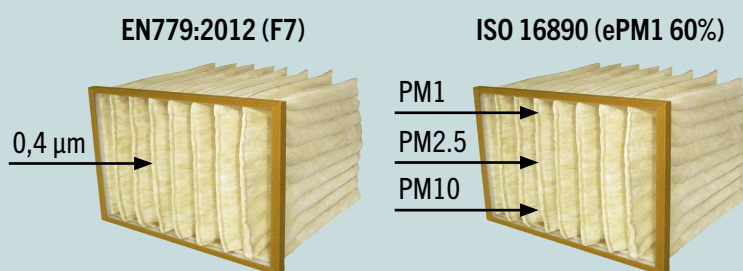
e = efficiency
PM = particulate matter (matter in the form of particles).

The new standard provides a clearer picture of the filter's properties and efficiency, which will help both clients and users to choose the right filter.

ISO 16890

PM-class	Minimum efficiency
ePM1	ePM1 min \geq 50%
ePM2.5	ePM2.5 min \geq 50%
ePM10	ePM10 \geq 50%
ePM coarse	ePM10 $<$ 50%

Dust feed/Particle size EN779:2012 – ISO 16890



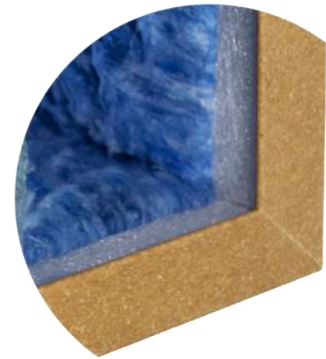
What is PM1?

By PM1 is meant all matter in the form of particles size less than 1 micron [μ] (1 thousands of millimeters).

1 μm = 0,001mm
 2,5 μm = 0,0025mm
 10 μm = 0,01mm

HoKu® – the filter frame of the future

- The best properties from wood and plastic combined in a composite material.
- Optimal use of wood raw material (wood waste) and recycled plastic.
- Very stable and torsional thanks to its homogeneous structure and corner construction.
- Leak-free design.
- Easy to install.
- Tested and approved (by ILH Berlin) in accordance with hygiene standard VDI 6022.
- Absolutely without added dyes, therefore the color may vary something because of the wood raw material.
- Fully recyclable by combustion.



Material Components	70% wood fibers + 30% Polypropylene
Operating temperature	- 60°C to +80°C
Fire properties (according to EN 13501-1)	Class E
Fire code (according to VKF)	4.3 / low smoke emission
Hygiene test (according to DIN EN ISO 846)	1/1
Use (according to VDI 6022 - hygiene in HVAC systems)	Suitable
Weight (592x592 /8)	715g (~45% by weight of the corresponding metal frame)
Percentage of metal	≤ 4% (by weight of frame)



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