



The Next Big Wave in HVAC Filter Performance

At Hollingsworth & Vose, we design industry-leading filter media to achieve significant energy reduction and building decarbonization at the HVAC level. Our proprietary materials feature the best pressure drop to performance quotient to deliver healthy, clean air while minimizing total cost of ownership and maximizing energy efficiency.

NanoWave® is a synthetic media with a waved design that allows air to permeate the filter with less resistance. This results in much lower energy consumption of air handling units, while simultaneously creating more surface area for superior filtration.

Reduced Energy Consumption

The lower the pressure drop of the filter element, the lower the force of the HVAC fan and, therefore, the energy consumption. The more beneficial the pressure drop behavior over the lifetime of the filter, the more the utility expense is reduced.

Longer Life

The waved surface of NanoWave® enables 2-4x the dust-holding capacity of other synthetic and glass media resulting in longer-life filters with fewer service intervals needed.

HV NanoWave®
A Hollingsworth & Vose Innovation



The key to filter technology lies in the media, the performance layer of the filter.



Learn more about NanoWave®

HV Hollingsworth & Vose® *Creating a Cleaner World™*

Save Energy. Save Money.



HVAC pocket media designed for unsurpassed efficiency and energy savings

Building owners and facilities managers no longer have to choose between healthy air and the burden of higher energy costs.

NanoWave® empowers filters that help achieve energy reduction targets and fulfill corporate social responsibility goals while ensuring a healthy indoor environment for occupants - the perfect win-win scenario for healthy buildings and a healthy bottom line.

What makes NanoWave® different?



SAFE

Entirely synthetic medium

NanoWave® is a fully synthetic (polypropylene) media that maintains its integrity.

There is minimal risk of exposure to loose fibers for operators during filter manufacturing, service technicians during installation and maintenance visits, and building occupants when the HVAC system is in use.



SUPERIOR

Extended filtration surface

Superior dust-holding capacity and significantly lower pressure drop compared to traditional synthetic media and glass mat. Best possible air quality and protection of people and processes. No unnecessary filter changes and less downtime translating into significant cost-savings.



INNOVATIVE

3D wave design

Allows air to permeate the filter with less resistance resulting in much lower energy consumption of air handling units. Considerably lower overall costs and best possible protection against dangerous contaminants.



SUSTAINABLE

Energy-efficient and disposable

Can be easily and safely disposed of (e.g. incinerated), without any negative impact to the environment.

No time-consuming and unnecessary disposal costs. Sustainable solution that saves energy, protects people's health and the environment.

Achieve more with less

NanoWave 3D media allows for construction of shorter pocket filters that can achieve the same efficiency with less filter area than competitive solutions. The result is filters that are better for manufacturers, building owners, installers and the planet.

NanoWave® XT, for example, empowers the shift from V-banks to short pocket configuration with lower element costs, one-third the media, at least half the filter weight and one-third the carbon footprint!

ePM1 65% use case with NanoWave® XT vs. ePM1 60% wetlaid glass V-bank



NanoWave®

NanoWave® short pocket filter overview:

- **ePM1:** 65%
- **Amount of media:** 4.5 sm
- **Weight of element:** 1.64 kg
- **Cost of element:** €207
- **Estimated carbon footprint:** 7.24 kgCo2e
- **Shipping and disposal volume for two filters:**
 $0.6 \times 0.6 \times 0.2 = 0.216 \text{ m}^3$

**Data based on filter elements from a leading filter manufacturer.*

Wetlaid Glass V-Bank

V-bank filter overview:

- **ePM1:** 60%
- **Amount of media:** 16.8 sm
- **Weight of element:** 4.41 kg
- **Cost of element:** €337
- **Estimated carbon footprint:** 21 kgCo2e
- **Shipping and disposal volume for one filter:**
 $0.6 \times 0.6 \times 0.3 = 0.324 \text{ m}^3$

**Data based on filter elements from a leading filter manufacturer.*

Benefits:

- Quicker processing
- Less material
- Less material management
- Smaller footprint
- Less weight
- Easier for technicians to carry & install
- Less material to transport
- Do more jobs per day
- Less disposal waste

Two NanoWave® short pockets can be shipped in the same packaging as one V-bank filter.

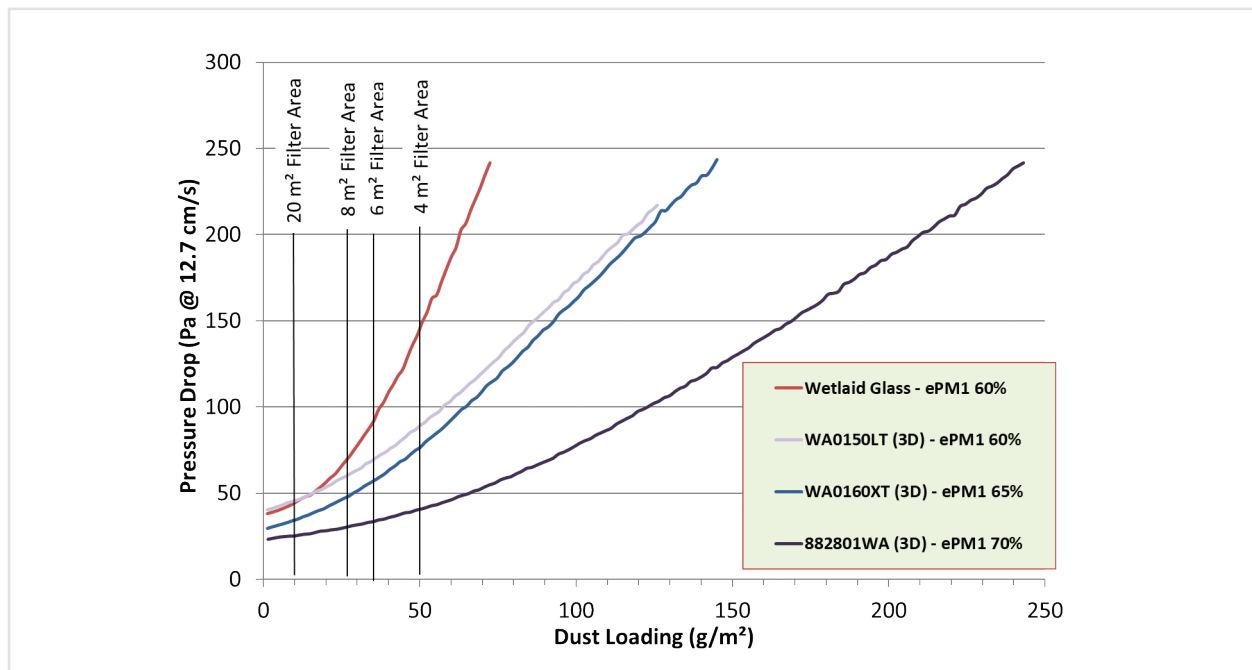
Step up to superior performance

Introducing our highest performing grade: TR882801WA



NanoWave® grades enable:

- Lowest initial pressure drop (dP).
- Highest dust-holding capacity (DHC) for longer service intervals.
- Best life cycle costs.
- Highest efficiency against fine particles (ePM1).



NanoWave® XTE (TR882801WA) outperforms all other media, combining high efficiency with high dust-holding capacity:

- Industry highest-efficiency synthetic HVAC media designed for building decarbonization.
- 3D waved structure composite with performance boost empowers up to 4x more dust-holding capacity than competitive media with less space.

Ask your sales representative about grade TR882801WA to learn more!