For years, the filtration industry has been looking for a synthetic alternative to glass mat media that offers better filter performance with lower energy costs. To meet this challenge, Hollingsworth & Vose Company has developed a unique, environmentally friendly choice for air filtration that meets the standards for HVAC bag applications.

NanoWave®, H&V’s proprietary extended surface synthetic media, offers the same efficiency and resistance in an uncharged state as glass mat media. However, NanoWave synthetic media eliminates the occurrence of fiber shedding that is associated with glass media during filter processing, installation, and use.

Designed specifically to meet ASHRAE 52.2 and new EN779 standards, NanoWave can be converted into a filter using conventional bag manufacturing equipment, eliminating capital expenses for plant equipment switching costs.

NanoWave is currently being used in applications that include the following:
- Commercial HVAC systems
- Aircraft paint spray facilities

Other potential NanoWave applications include
- Residential HVAC systems
- Vacuum cleaner bag and exhaust filters
- Respirator filter media
- Auto cabin air filter media

NanoWave filters last longer than conventional glass media, and this high-loft media offers twice the dust-holding capabilities of traditional synthetic media, resulting in a more efficient and economic filter.

Additionally, NanoWave’s high stiffness and updated design allow proper bag opening, and the material retains its shape in variable HVAC systems, reducing setup time and increasing productivity.

Benefits
- Increased filter life
- Excellent dust-holding capacity
- Reduced disposal cost
- Elimination of fiber shedding
- Lower energy costs through better air handling
- Processing on conventional and ultrasonic equipment
H&V’s innovative NanoWave synthetic media improves filtration effectiveness and productivity compared to traditional synthetics.

**Performance efficiency and resistance**

Compared to conventional synthetic media, which relies on electrostatic charge, NanoWave meets the same efficiency at half the resistance in a discharged condition.

NanoWave can be offered as either a charged or uncharged media. Charged media offers the advantage of enhanced initial efficiency on submicron particles.

**Discharged efficiency vs. pressure drop**

NanoWave offers much lower pressure drop for a given efficiency versus standard synthetic, resulting in lower energy consumption for air handling equipment.

![Discharged Efficiency Vs. Pressure Drop](image)

**Dust-Holding Capacity**

More than 2X dust holding capacity vs. standard synthetic

![Dust-Holding Capacity](image)

**NanoWave pressure drop for various classifications**

<table>
<thead>
<tr>
<th>Filtration Classification</th>
<th>Pressure Drop (Pa @ 0.11 m/s)</th>
</tr>
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<tbody>
<tr>
<td><strong>European Standards</strong></td>
<td></td>
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<tr>
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<td>MERV 15</td>
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Please note: These are average values and do not form a specification.