KeyPleat™
MERV 8 Standard-Capacity
Self-Supported Pleated Filters

- Standard-Capacity MERV 8, MERV-A 8-A
- New automated process delivers consistency and durability
- Durable, self-supporting synthetic media
- No metal, fully incinerable
- Die cut frame with interlocking corners for added strength
Purolator Introduces Key Pleat MERV 8 . . .

Purolator is very pleased to announce the latest improvement in self-supported pleated filters – the Key Pleat™ MERV 8, standard-capacity. The new Key Pleat is the result of the on-going commitment and investment Purolator is making to improve the science of air filtration and the quality and performance of its air filter products.

Process Innovation, Design Excellence and Improved Media

Purolator’s self-supporting media and innovative automated manufacturing process produces consistent pleat shape and spacing in each Key Pleat. This state-of-the-art media pack is surrounded by a single-piece, beverage board die cut frame, with structural integrity unlike any self-supported filter available today. The Key Pleat MERV 8 can endure impact and deformation and return to its original shape, ready for installation. That means you avoid the time and cost that are often wasted replacing damaged wire-backed filters.

Seven-strap Die Cut

A seven-strap die cut is located on the air-leaving side of the Key Pleat MERV 8 providing additional strength and durability to each filter. In combination, the boxed pleat tips provide more surface area and points of contact for the die cut to be securely glued to the media pack. As an example, the pleat tips are glued to the die cut at more than 140 points on a 24”x24”x2”, Key Pleat MERV 8 standard-capacity filter.

100% Adhesive Application Ensures Filter Strength

The inside of the die cut frame is completely coated with adhesive to ensure a solid bond at all points of contact with the media pack. The pack is sealed inside the frame and pleat tips are bonded to the stabilizers and diagonal support members.

Water Repellent Adhesive

The sealant used to bond the frame to the media pack is highly water-repellent. That means that the filters
maintain structural integrity even when wet; no delaminating, excessive buckling, or collapsing.

**Uniformity of Pleats**

The uniformity of pleat height and spacing ensures optimal performance throughout the useful life of every Key Pleat MERV 8 filter. The combination of the self-supporting media and the innovative, automated construction also means low resistance to airflow and cost-effective, environmentally responsible use of energy resources. Additionally, the consistent pleat spacing supports balanced loading, which maximizes the dust-holding capacity of the filter and promotes longer service life. Pleats will not bunch or collapse which can cause an increase in pressure drop and potential failure of the filter.

**100% Synthetic Media Resists Moisture and Damage**

Key Pleat MERV 8 media is a unique blend of synthetic fibers formed into a mat with high strength and stiffness characteristics. The inherent strength provides rugged durability in operation. The media stiffness, when matched to our automated process, allows totally consistent spacing of the pleats. Blended fiber construction allows full depth loading which enhances dust-holding capacity. Media performance is not impacted by high humidity or moisture and the synthetic fibers do not support microbial growth.

**Key Pleat** MERV 8 media operates on mechanical filtration principles which cause particulate efficiency to increase as the media loads. No enhanced electrostatic charge is intentionally applied to the media.

**Applications**

The Key Pleat MERV 8 is ideal for standard applications with normal airflows of 500 FPM or lower and medium dust-loading conditions. It is not recommended for applications with very high and/or turbulent airflows, higher operating temperatures or excessive dust-loading conditions. Contact your Purolator Sales Representative for assistance with application or technical issues.
**Technical Data:**

<table>
<thead>
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<th>Model Number</th>
<th>Nominal Size (WxHxD)</th>
<th>Actual Size (WxHxD)</th>
<th>Rated Air Flow Capacity (CFM)</th>
<th>Initial Resistance (In. W.G.)</th>
<th>Gross Media Area (Sq. Ft.)</th>
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**NOTES:**
1. MERV 8, MERV-A 8-A
2. All performance data is based on the ASHRAE 52.2-2007 Test Standard. Tested at 492 FPM for a 24x24x2 size filter.
3. Maximum final resistance 1.0” W.G.
4. Filters may be installed with the pleats either vertical (preferred) or horizontal.

**Underwriters Laboratories, Inc.**
Classification: Key Pleat filters are classified per U.L. 900 for flammability only.

**Operating Temperature Limits:**
Maximum operating temperature is 150°F (65°C).

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**SPECIFICATIONS**

1. **Scope**
The specification covers self-supported pleated panel filters that are a component of heating, ventilating, and air conditioning systems.

2. **Construction**
The filters shall consist of a self-supported pleated media pack contained in a die cut beverage board frame.

3. **Media**
The media shall consist of 100% synthetic fibers.

4. **Media Pack**
The media shall be formed into uniformly shaped pleats with equal height measured from pleat apex to apex. The media pack shall be self-supporting, without the use of metal backing. The media pack shall maximize surface area to ensure adhesion with the stabilizer support straps and die cut diagonal support straps.

5. **Filter Frame**
The pleated media pack shall be contained in a frame made from a single-piece of die cut beverage board with high wet-strength characteristics. The die cut frame shall fully overlap around the entire perimeter of the filter. Diagonal support members shall provide support for the media pack on the air-facing side. The die cut frame shall interlock in the corners, providing additional strength and rigidity.

6. **2.4 Media Pack Adhesive**
The entire inside surface of the die cut frame shall be coated with a water-repellent adhesive to bond the pack inside the frame on all four edges. The pleat tips shall be bonded to the diagonal support members at all points of contact on the air-facing side.

7. **Adhesive**
The adhesive shall be water-repellent and maintain its bonding characteristics when wet. The adhesive shall not soften or dissolve when the filter is wet.

8. **3.0 Performance**

9. **3.1 Filter Performance**
The filters shall meet the following minimum performance requirements based on the ASHRAE 52.2-2007 test standard. Testing shall be performed at 295 FPM on 1” filters and 492 FPM on 2” filters.

10. **3.2 Maximum Operating Temperature**
The maximum operating temperature for the filter shall be 150°F (65°C).

11. **3.3 Underwriters Laboratories Classification**
The filters shall be classified per U.L. Standard 900 for flammability only.