

# VariCel® II

## EXTENDED SURFACE MINI-PLEAT FILTERS

- True high efficiency filters – only 4" thick media pack
- Slim line, mini-pleat design lowers operating costs
- Engineered for a variety of applications
- Easy disposal
- Available with antimicrobial
- Available in three efficiencies – MERV 14, MERV 13, and MERV 11

Designed for high performance under both normal and difficult operating conditions, VariCel II filters are appropriate for general HVAC and applications operating with variable air volume, turbulent airflow, and high humidity. The combination of durable construction and high efficiency also makes VariCel II filters ideal for specialized systems, such as diffusion filters in paint booths and prefilters in cleanrooms.

### Heavy Duty Construction— High Performance in Tough Operating Conditions

The frame is made with a 2-piece die cut constructed from high wet-strength beverage board. Two mating die cut boxes are bonded together, forming a double wall around the perimeter of the filter. The mini-pleat media pack is bonded inside the double wall. The double-walled frame prevents leakage and increases rigidity.

### Available with Antimicrobial

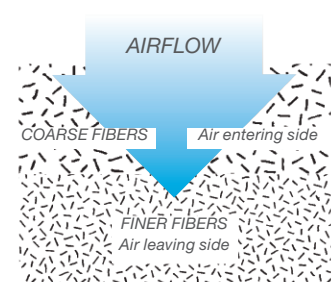
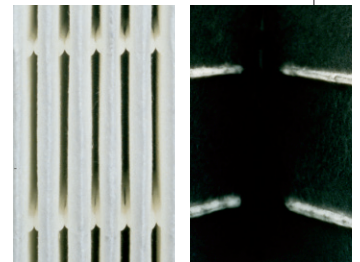
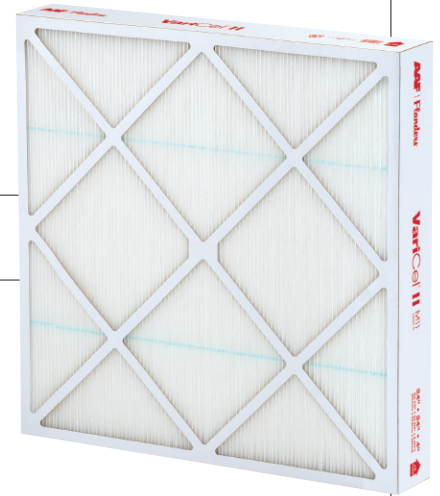
VariCel II filters with antimicrobial are available in MERV 14 and MERV 11 efficiencies. Antimicrobial acts as a preservative to ensure the integrity of the media throughout the life of the filter. EPA-registered and environmentally safe, antimicrobial inhibits the growth of microorganisms documented to affect IAQ.

### Slim-Line Design

The slim-line design of the VariCel II filters provides minimum resistance and maximum dust loading capacity while lowering operating costs. Rows of adhesive beads are used to maintain even pleat spacing and provide maximum airflow with minimal resistance. The consistent pleat spacing of the media allows higher dust holding capacity and full use of the entire depth of the media.

### Dual-Density Media Increases Dust Holding Capacity

VariCel II filters use microglass paper media with a water repellent binder. The fibers are formed with dual-density construction, consisting of coarser fibers on the air entering side and finer fibers on the air leaving side. This design allows for collection of particulate throughout the full thickness of the media, substantially increasing dust holding capacity. The media is water repellent and can withstand intermittent exposure to water without affecting performance.



# VariCel® II Filters

## Product Information

(1) Rated Filter Face Velocity (FPM)	(2) Nominal Size (Inches) (W x H x D)	(2) Actual Size (Inches) (W x H x D)	(3) Rated Airflow Capacity (CFM)	(3) Rated Initial Resistance (in. w.g.)	(4) Recommended Final Resistance (in. w.g.)	Gross Media Area (Sq.Ft.)	Shipping Weight (Lbs. Per Carton)
<b>(3) MERV 14 – Available with Antimicrobial</b>							
500	24 x 24 x 4	23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	2000	.63	1.5	119	26
500	20 x 25 x 4	19 <sup>9</sup> / <sub>8</sub> x 24 <sup>6</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1750	.63	1.5	103	22
500	20 x 24 x 4	19 <sup>9</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1650	.63	1.5	99	21
500	20 x 20 x 4	19 <sup>9</sup> / <sub>8</sub> x 19 <sup>9</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1400	.63	1.5	82	18
500	18 x 24 x 4	17 <sup>7</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1500	.63	1.5	88	19
500	16 x 25 x 4	15 <sup>5</sup> / <sub>8</sub> x 24 <sup>6</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1400	.63	1.5	82	18
500	16 x 20 x 4	15 <sup>5</sup> / <sub>8</sub> x 19 <sup>9</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1100	.63	1.5	65	14
500	12 x 24 x 4	11 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1000	.63	1.5	58	13
500	12 x 12 x 4	11 <sup>3</sup> / <sub>8</sub> x 11 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	500	.63	1.5	28	7
<b>(3) MERV 13</b>							
500	24 x 24 x 4	23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	2000	.58	1.5	119	26
500	20 x 25 x 4	19 <sup>9</sup> / <sub>8</sub> x 24 <sup>6</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1750	.58	1.5	103	22
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<b>(3) MERV 11 – Available with Antimicrobial</b>							
500	24 x 24 x 4	23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	2000	.47	1.5	119	26
500	20 x 25 x 4	19 <sup>9</sup> / <sub>8</sub> x 24 <sup>6</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1750	.47	1.5	103	22
500	20 x 24 x 4	19 <sup>9</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1650	.47	1.5	99	21
500	20 x 20 x 4	19 <sup>9</sup> / <sub>8</sub> x 19 <sup>9</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1400	.47	1.5	82	18
500	18 x 24 x 4	17 <sup>7</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1500	.47	1.5	88	19
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500	16 x 20 x 4	15 <sup>5</sup> / <sub>8</sub> x 19 <sup>9</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1100	.47	1.5	65	14
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(1) Filters can be operated up to 125% of rated face velocity.

(2) Width and height dimensions are interchangeable. VariCel II filters may be installed with the pleats either vertical or horizontal.

(3) All performance data based on ASHRAE Standard 52.2. Performance tolerances conform to Section 7.4 of ARI Standard 850-93. For maximum service life, VariCel II filters should always be operated with a prefilter.

(4) The final operating resistance shown is typical of systems currently in operation.

Filters can be operated to a higher or lower final resistance without materially affecting filter efficiency; however, dust holding capacity will be reduced if the filters are changed at a lower final resistance.

(5) VariCel II filters are shipped four per carton.

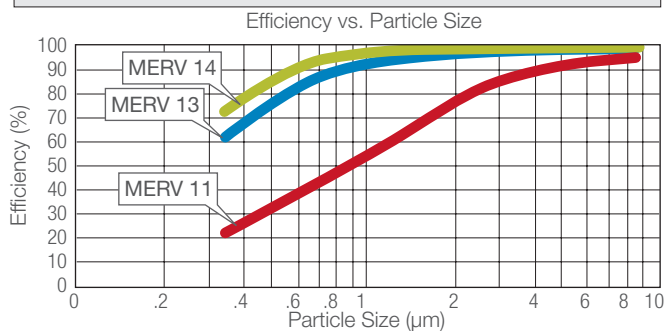
Underwriters Laboratories Classification: All VariCel II filters are UL Classified. Testing was performed according to UL Standard 900 and ULC-S111.

Continuous Operating Temperature Limits: 150°F (66°C)

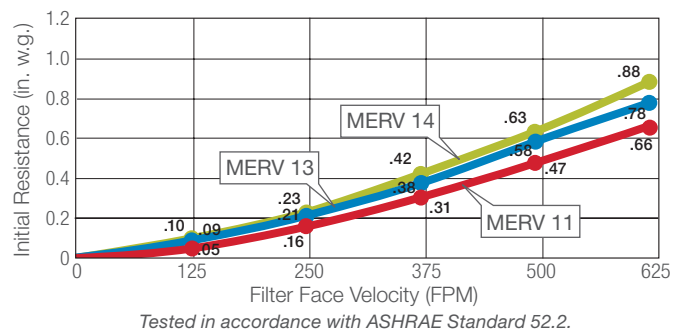
For product information on VariCel II MH filters, request bulletin AFP-1-239.

## Performance Data

### Composite Minimum Efficiency Curve



### Initial Resistance vs. Filter Face Velocity



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