

# VariCel® 2+

## EXTENDED SURFACE FILTERS



### Key Features

- Low pressure drop with a high mechanical strength saves on overall operating costs
- Excellent performance under difficult operating conditions
- Lightweight, damage-resistant and easy to handle and install
- Slimline design significantly reduces shipping, storage and disposal cost
- Available in MERV 11, MERV 14 and MERV 15 efficiencies
- 4" filter depth
- Single-header or box-style available
- Maximum operating temperature: 150°F (66°C)
- UL 900 classified

### Applications

VariCel 2+ filters are appropriate for general HVAC and industrial applications, including applications operating with variable air volume, turbulent airflow, and high humidity.

- Beverage, Dairy & Food
- Data Centers
- Hotels
- K - 12 Schools
- Multi-Use Properties
- Museums
- Universities

### Overview

The VariCel 2+ is an advanced air filter featuring innovative embossing technology that delivers high-capacity performance in a compact design. Its optimized synthetic media provides excellent dust holding capacity, moisture resistance, and durability, making it ideal for challenging HVAC environments with variable air volume. Despite being only 4 inches deep, the filter offers performance comparable to deeper 22-inch bag filters, with a rigid structure that prevents particulate migration and ensures consistent filtration efficiency.

### Energy Savings Design

The VariCel 2+ filter's wider pleat openings and reduced separator material deliver lower pressure drop, minimizing operating resistance. This design saves energy and makes it the most efficient 4" filter available.

### Long Service Life

With low initial resistance, ideal pleat spacing, and high media density, the VariCel 2+ maximizes particle management and media utilization. Its high Dust Holding Capacity (DHC) translates to extended service life and fewer filter changeouts.

### High Performance in Tough Conditions

Moisture-resistant media encased in high-impact plastic cell sides and sealed with a water-based copolymer emulsion ensures consistent performance, even with intermittent water exposure.

### Compact, Space-Saving Packaging

The slim design allows four filters to be shipped in a 16-inch carton, significantly reducing shipping costs and storage space compared to competitive products.

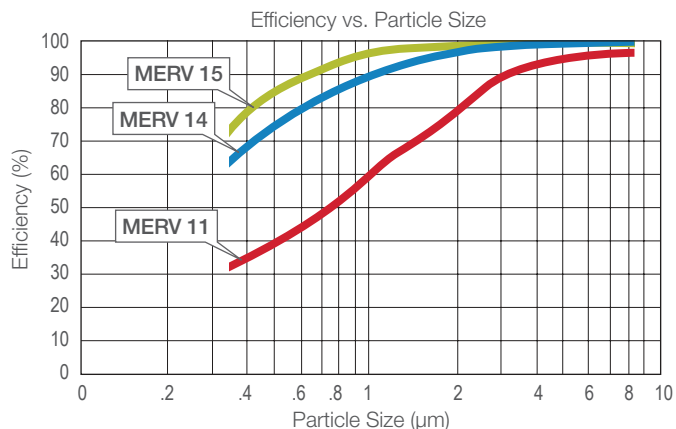
### Environmentally Friendly Disposal

Its slender profile simplifies disposal while eliminating glue for pleat binding, reducing environmental waste. With a volume one-third that of comparable filters and no metal components, the VariCel 2+ offers efficient incineration and landfill reduction options.

# VariCel® 2+ Filters

## Performance Data

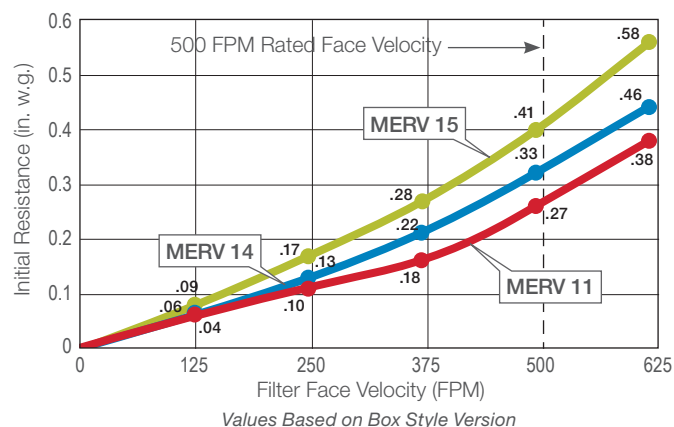
Composite Minimum Efficiency Curve



Tested in accordance with ASHRAE Standard 52.2.

VariCel® is a registered trademark of AAF International in the U.S. and other countries.

Initial Resistance vs. Filter Face Velocity



## Product Information

<sup>(1)</sup> Rated Filter Face Velocity (FPM)	<sup>(2)</sup> Nominal Size (inches) (W x H x D)	<sup>(2)</sup> Actual Size (inches) (W x H x D)	<sup>(3)</sup> Rated Airflow Capacity (CFM)	Box Style (NH) <sup>(3)</sup> Rated Initial Resistance (in. w.g.)	Header Style (SH) <sup>(3)</sup> Rated Initial Resistance (in. w.g.)	<sup>(4)</sup> Recommended Final Resistance (in. w.g.)
<b><sup>(3)</sup>MERV 15</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	.41	.47	1.5
	20 x 25 x 4	19 <sup>3</sup> / <sub>8</sub> x 24 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1750	.41	.47	1.5
	20 x 24 x 4	19 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1650	.41	.47	1.5
	20 x 20 x 4	19 <sup>3</sup> / <sub>8</sub> x 19 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1400	.41	.47	1.5
	18 x 24 x 4	17 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1500	.41	.47	1.5
	16 x 25 x 4	15 <sup>3</sup> / <sub>8</sub> x 24 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1400	.41	.47	1.5
	16 x 20 x 4	15 <sup>3</sup> / <sub>8</sub> x 19 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1100	.41	.47	1.5
	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	.41	.47	1.5
	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	.41	.47	1.5
<b><sup>(3)</sup>MERV 14</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	.33	.39	1.5
	20 x 25 x 4	19 <sup>3</sup> / <sub>8</sub> x 24 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1750	.33	.39	1.5
	20 x 24 x 4	19 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1650	.33	.39	1.5
	20 x 20 x 4	19 <sup>3</sup> / <sub>8</sub> x 19 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1400	.33	.39	1.5
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	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	.33	.39	1.5
<b><sup>(3)</sup>MERV 11</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	.27	.32	1.5
	20 x 25 x 4	19 <sup>3</sup> / <sub>8</sub> x 24 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1750	.27	.32	1.5
	20 x 24 x 4	19 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1650	.27	.32	1.5
	20 x 20 x 4	19 <sup>3</sup> / <sub>8</sub> x 19 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	1400	.27	.32	1.5
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(1) Filters can be operated up to 125% of rated face velocity.

(2) Width and height dimensions are interchangeable. VariCel 2+ 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 2+ 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. The most economical operating conditions can be determined by contacting your local AAF representative.

**Underwriters Laboratories Classification** All VariCel 2+ filters are UL Classified. Testing was performed according to UL Standard 900 and ULC-S111.

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



9920 Corporate Campus Drive, Suite 2200, Louisville, KY 40223-5690  
888.223.2003 | aafintl.com

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ISO Certified Firm

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