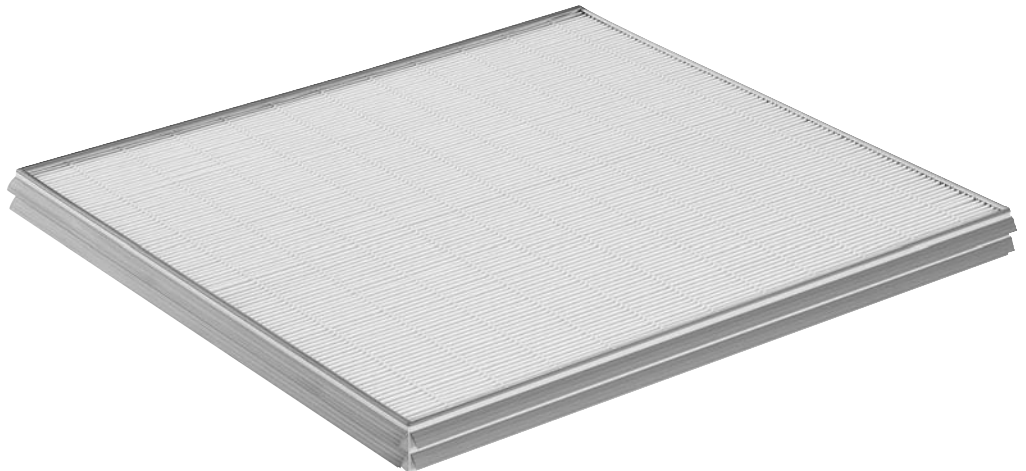




## Commercial High Performance HVAC Filter

- **Physical Characteristics**
  - 100% synthetic media - resists moisture and common chemicals
  - 100% synthetic frame - lightweight, resists moisture
  - Integral gaskets - provide an effective seal
  - High durability - no special handling required
  - Continuous pleat spacing glue bead
  - Electrostatically charged media (refer to Performance Data on next page)
- **Performance Notes**
  - Typical initial resistance: 0.37 inches of water (92 Pa) @ 492 fpm
  - UL 900, Class 1 flammability rating (US)
  - UL 900, Class 2 flammability rating (Canada)
  - Operating temperature range: 122°F (50°C), -22°F (-30°C)



## Performance Data

### IMPORTANT NOTICE:

#### Efficiency During Use:

Particle capture efficiency of electrostatically charged filters has been shown to decrease during actual use. The timeframe and the extent to which this decrease occurs depend on particle size and loading conditions as shown in the graph and table below. This effect has been observed in as little as one week to six weeks of actual use. Actual particle efficiencies during use may be lower than those shown below, also depending on particle size and loading conditions.

**Service Life:** Filter should be replaced before reaching a final resistance of 1.4 inches (3.6 cm) of water (350 Pa) to maintain design performance of the filter. Certain system designs may require filter replacement at lower resistances.

#### Independent Laboratory

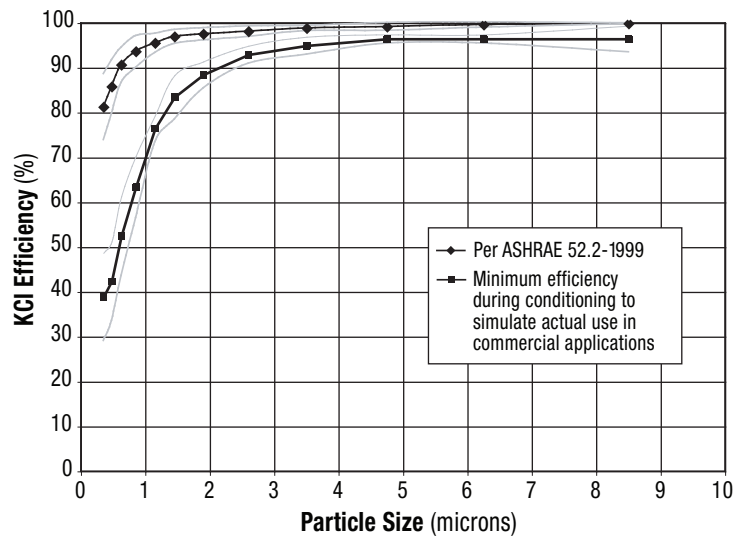
**Testing:** Filtrete™ Commercial High Performance Filters have been tested by an independent laboratory in accordance with ASHRAE or EN779-2002 standards. Performance ratings are based on testing of new filters with a +/- 95% confidence interval of the average.

## Filtrete™ Commercial High Performance HVAC Filter

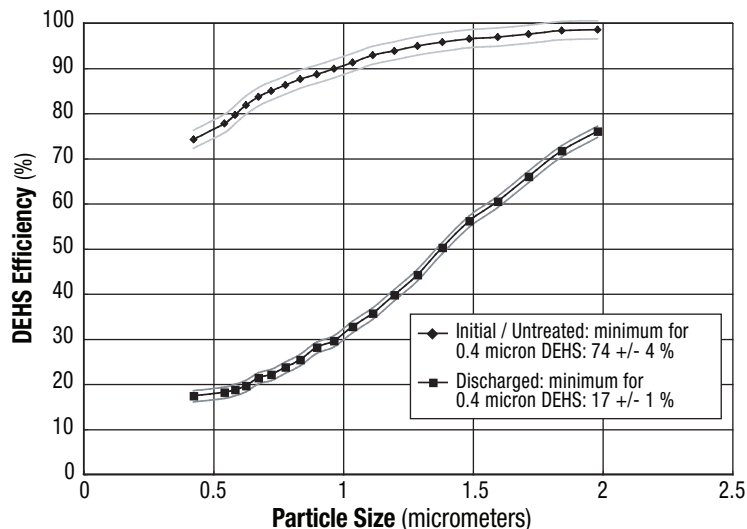
Air Velocity for ASHRAE Testing	492 fpm (1968 cfm for 24" x24" filter)
Air Velocity for EN779 Testing	2.5 m/s (3400 m <sup>3</sup> /hr for 0.6m x 0.6m filter)
Initial Resistance	0.37 inches of water (92 Pa)
Recommended Final Resistance	1.40 inches of water (350 Pa)
Average Dust Spot Efficiency per ASHRAE 52.1-1992	90-95%
Initial Efficiency Rating per ASHRAE 52.2-1999 <sup>1</sup>	MERV-14
Minimum Efficiency Rating During Conditioning to Simulate Actual Use in Commercial Applications	Corresponds to MERV-12
Filter Class per EN779-2002	F6
Average Efficiency per EN-779-2002	78 +/- 3 %
Average Dust Holding Capacity at 1.4 inches water (350 Pa)	69 +/- 6 g

<sup>1</sup>Basis for MERV rating per ASHRAE 52.2-1999.

### Filter Efficiency vs. Particle Size at 492 fpm (2.5 m/s) per ASHRAE



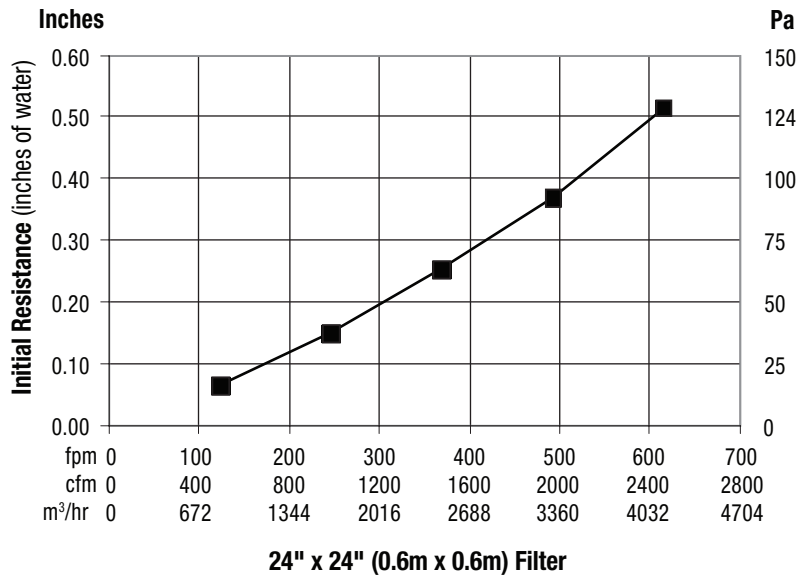
### Efficiency vs. Particle Size per EN779-2002 (3400 m<sup>3</sup>/hr)



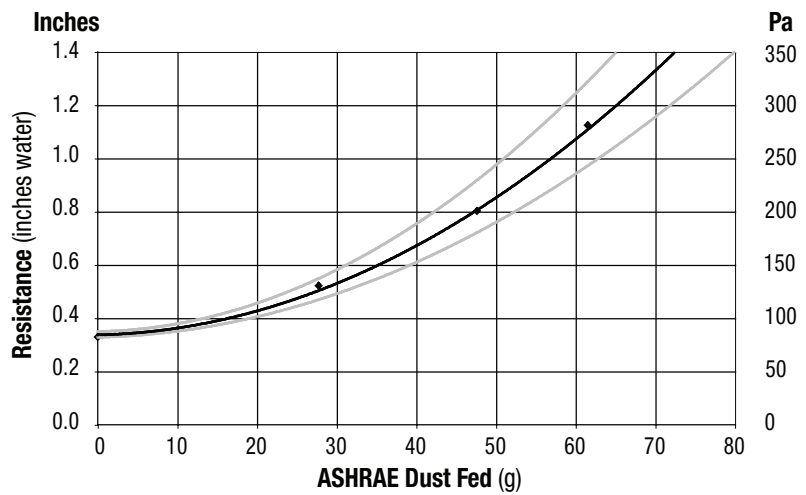
**Performance Data**  
(continued)

Particle Size Range	Average Particle Efficiencies (492 fpm)	
	Minimum efficiency per ASHRAE 52.2-1999	Minimum efficiency after conditioning to simulate actual use in commercial applications
0.3-1.0 $\mu\text{m}$	88 $\pm$ 5%	49 $\pm$ 8%
1.0-3.0 $\mu\text{m}$	96 $\pm$ 1%	86 $\pm$ 4%
3.0-10 $\mu\text{m}$	99 $\pm$ 0.5%	96 $\pm$ 3%

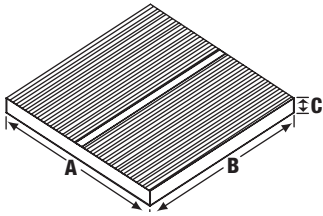
**Initial Resistance vs. Air Velocity**



**Resistance vs. Dust Loading @ 492 fpm (2.5 m/s)**



## Filter Measurements



Product No.	Stock No.	Nominal Dimensions inches (mm)	Width "A" inches (mm)	Height "B", inches (mm)	Depth "C" inches (mm)
E133	70-0708-1943-1	10 x 10 x 2 (254 x 254 x 51)	9 <sup>3</sup> / <sub>8</sub> (238)	9 <sup>3</sup> / <sub>8</sub> (238)	1 <sup>7</sup> / <sub>8</sub> (48)
E124	70-0708-1934-0	10 x 20 x 2 (254 x 508 x 51)	9 <sup>3</sup> / <sub>8</sub> (238)	19 <sup>3</sup> / <sub>8</sub> (492)	1 <sup>7</sup> / <sub>8</sub> (48)
E125	70-0708-1935-7	12 x 20 x 2 (305 x 508 x 51)	11 <sup>3</sup> / <sub>8</sub> (289)	19 <sup>3</sup> / <sub>8</sub> (492)	1 <sup>7</sup> / <sub>8</sub> (48)
F978	70-0708-1806-0	12 x 24 x 2 (305 x 610 x 51)	11 <sup>3</sup> / <sub>8</sub> (289)	23 <sup>3</sup> / <sub>8</sub> (594)	1 <sup>7</sup> / <sub>8</sub> (48)
E126	70-0708-1936-5	14 x 20 x 2 (356 x 508 x 51)	13 <sup>3</sup> / <sub>8</sub> (340)	19 <sup>3</sup> / <sub>8</sub> (492)	1 <sup>7</sup> / <sub>8</sub> (48)
E127	70-0708-1937-3	14 x 25 x 2 (356 x 635 x 51)	13 <sup>3</sup> / <sub>8</sub> (340)	24 <sup>3</sup> / <sub>8</sub> (619)	1 <sup>7</sup> / <sub>8</sub> (48)
E136	70-0708-1946-4	15 x 20 x 2 (381 x 508 x 51)	14 <sup>3</sup> / <sub>8</sub> (365)	19 <sup>3</sup> / <sub>8</sub> (492)	1 <sup>7</sup> / <sub>8</sub> (48)
E128	70-0708-1938-1	16 x 16 x 2 (406 x 406 x 51)	15 <sup>3</sup> / <sub>8</sub> (391)	15 <sup>3</sup> / <sub>8</sub> (391)	1 <sup>7</sup> / <sub>8</sub> (48)
F979	70-0708-1807-8	16 x 20 x 2 (406 x 508 x 51)	15 <sup>3</sup> / <sub>8</sub> (391)	19 <sup>3</sup> / <sub>8</sub> (492)	1 <sup>7</sup> / <sub>8</sub> (48)
E129	70-0708-1939-9	16 x 24 x 2 (406 x 610 x 51)	15 <sup>3</sup> / <sub>8</sub> (391)	23 <sup>3</sup> / <sub>8</sub> (594)	1 <sup>7</sup> / <sub>8</sub> (48)
F980	70-0708-1808-6	16 x 25 x 2 (406 x 635 x 51)	15 <sup>3</sup> / <sub>8</sub> (391)	24 <sup>3</sup> / <sub>8</sub> (619)	1 <sup>7</sup> / <sub>8</sub> (48)
E132	70-0708-1942-3	18 x 20 x 2 (457 x 508 x 51)	17 <sup>3</sup> / <sub>8</sub> (441)	19 <sup>3</sup> / <sub>8</sub> (492)	1 <sup>7</sup> / <sub>8</sub> (48)
F981	70-0708-1809-4	18 x 24 x 2 (457 x 610 x 51)	17 <sup>3</sup> / <sub>8</sub> (441)	23 <sup>3</sup> / <sub>8</sub> (594)	1 <sup>7</sup> / <sub>8</sub> (48)
E130	70-0708-1940-7	18 x 25 x 2 (457 x 635 x 51)	17 <sup>3</sup> / <sub>8</sub> (441)	24 <sup>3</sup> / <sub>8</sub> (619)	1 <sup>7</sup> / <sub>8</sub> (48)
F977	70-0708-1805-2	20 x 20 x 2 (508 x 508 x 51)	19 <sup>3</sup> / <sub>8</sub> (492)	19 <sup>3</sup> / <sub>8</sub> (492)	1 <sup>7</sup> / <sub>8</sub> (48)
E131	70-0708-1941-5	20 x 24 x 2 (508 x 610 x 51)	19 <sup>3</sup> / <sub>8</sub> (492)	23 <sup>3</sup> / <sub>8</sub> (594)	1 <sup>7</sup> / <sub>8</sub> (48)
F982	70-0708-1810-2	20 x 25 x 2 (508 x 635 x 51)	19 <sup>3</sup> / <sub>8</sub> (492)	24 <sup>3</sup> / <sub>8</sub> (619)	1 <sup>7</sup> / <sub>8</sub> (48)
E134	70-0708-1944-9	20 x 30 x 2 (508 x 762 x 51)	19 <sup>3</sup> / <sub>8</sub> (492)	29 <sup>3</sup> / <sub>8</sub> (746)	1 <sup>7</sup> / <sub>8</sub> (48)
F976	70-0708-1804-5	24 x 24 x 2 (610 x 610 x 51)	23 <sup>3</sup> / <sub>8</sub> (594)	23 <sup>3</sup> / <sub>8</sub> (594)	1 <sup>7</sup> / <sub>8</sub> (48)
E135	70-0708-1945-6	25 x 25 x 2 (635 x 635 x 51)	24 <sup>3</sup> / <sub>8</sub> (619)	24 <sup>3</sup> / <sub>8</sub> (619)	1 <sup>7</sup> / <sub>8</sub> (48)



## Additional Information

For questions or to place an order in the U.S., contact your local 3M Filtration distributor or 3M Customer Service at 1-800-648-3550 or 651-737-2433.

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