**AmericanAirFilter®**

# PerfectPleat® ULTRA

*1" and 2" Extended Surface,*
*Pleated Filter with Antimicrobial*
*MERV 8*

*Better Air is Our Business®*

**AAF®**
INTERNATIONAL

# AmericanAirFilter®

# PerfectPleat® ULTRA

*Extended Surface, Pleated Filter
with Process-Controlled Quality
MERV 8*

- *Patented media, filter design, and manufacturing process. Covered under one or more of the following patents: US 6398839 B2; US 6254653 B1; US 6159318; US 6165242; US 6387140 B1 (1" model only)*
- *Premium performance and construction*
- *Self-supporting media; no wire supporting grid*
- *Tested in accordance with ASHRAE Standard 52.2*
- *Incorporates antimicrobial*
- *Available in 1", 2" and \*4" models*

## PerfectPleat with Antimicrobial

The American Air Filter PerfectPleat leads the industry. Uniform pleat spacing and patented DuraFlex® media make it strong. Uniform size virgin fibers assembled in closely controlled blends give it remarkably consistent performance. Now AAF has taken the next step by creating a MERV 8 DuraFlex media and incorporating antimicrobial. The result is the PerfectPleat ULTRA.
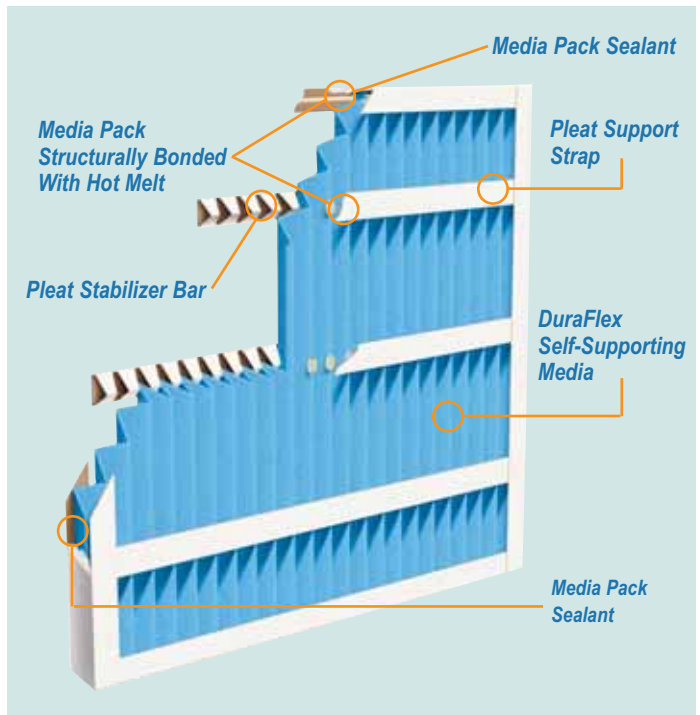
MERV 8 performance means better than 70% initial efficiency on 3.0-10.0 micron particles (PerfectPleat ULTRA becomes much more efficient after the first dust loading). DuraFlex media employs principles of mechanical filtration so that efficiency increases as the filter does its job. DuraFlex media is not enhanced by an electret charge that dissipates over time reducing media efficiency, in some instances significantly.

Antimicrobial is applied to preserve the integrity of the media throughout the filter's useful life by inhibiting microbial growth.
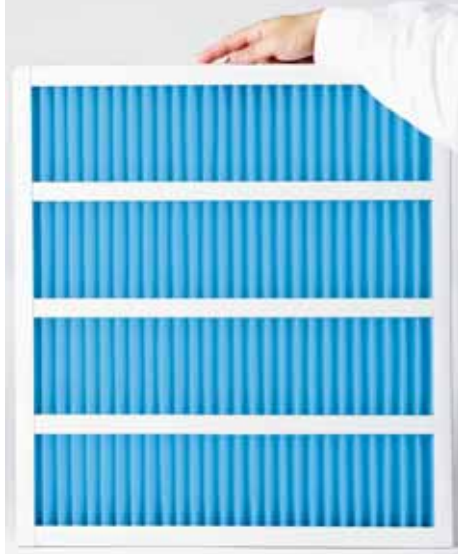
## DuraFlex® Media — Patented Media Design

DuraFlex is a self-supporting media that is remarkably consistent in performance. The self-supporting characteristics allow a pleating pattern that promotes excellent dust holding and low resistance to airflow. DuraFlex media meets or exceeds all current expectations for performance and service life for conventional pleated filters.

*See brochure AFP-1-206 for 4" model.

## PerfectPleat ULTRA 2" Construction



Media Pack Sealant

Media Pack Structurally Bonded With Hot Melt

Pleat Support Strap

Pleat Stabilizer Bar

DuraFlex Self-Supporting Media

Media Pack Sealant

PerfectPleat ULTRA with DuraFlex media produces a filter with excellent form and fit.

As a result of its unique design, PerfectPleat ULTRA can withstand significant damage.

DuraFlex media has "memory" which allows PerfectPleat ULTRA to remain functional, even when the frame has been compromised.

## The Benefits of Self-Supporting DuraFlex Media

When pleated, DuraFlex will hold its shape without the wire pleat support grid characteristic of competitors' pleated filters. That means no potential for the formation of rust on the filter. It also means safer handling - no nicks or cuts for the installer. With the superior resiliency of DuraFlex media and no need for wire support, the PerfectPleat can sustain significant abuse and maintain its shape and consistent pleat spacing. The absence of wire also makes the filter totally incinerable, which simplifies disposal.

## Heavy Duty Frame

The perimeter frame of the PerfectPleat ULTRA is constructed from the highest wet-strength, 28 pt. beverage carrier board available and is securely bonded to the media pack. The 28 pt. thickness improves filter strength and helps resist damage.

Patented tri-bar pleat stabilizers are bonded to the media to ensure uniform pleat spacing and provide additional strength. Three sets of pleat stabilizers are bonded to the air-leaving side of the filter. On the air entering side, three support straps enhance the PerfectPleat ULTRA's strength and durability. The pleat straps and the pleat stabilizers ensure stability against turbulent airflow and provide excellent lateral stability for installation in side-access systems.

## Applications

The PerfectPleat ULTRA is ideal for applications where pleated filters are currently in use and higher efficiencies are desired or required. It is also suited to high moisture conditions where bacterial growth may be likely to occur on air filters. The antimicrobial treated media used in the PerfectPleat ULTRA minimizes the chance of bacterial growth.

Every PerfectPleat ULTRA offers superior durability and performance when properly installed and maintained.



PerfectPleat ULTRA 2" air leaving side.



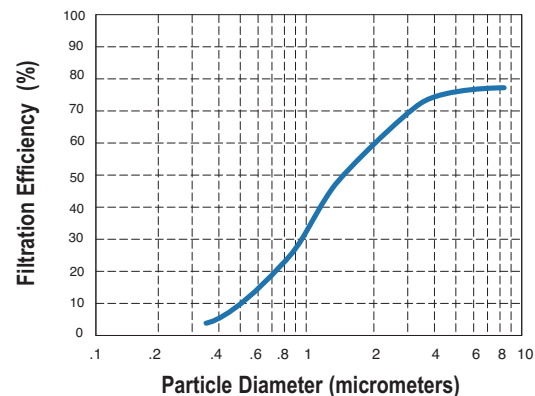PerfectPleat ULTRA 2" air entering side.

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## Product Information — Standard Sizes

| Nominal Sizes* (Inches) (W x H x D) | Actual Sizes (Inches) (W x H x D) | Rated Airflow Capacity (SCFM) 300 FPM | 500 FPM | 625 FPM | Pleats Per Filter |
|---|---|---|---|---|---|
| | | | | | **1"** |
| 10 x 10 x 1 | 9-1/2 x 9-1/2 x 3/4 | 200 | 350 | | 11 |
| 10 x 20 x 1 | 9-1/2 x 19-1/2 x 3/4 | 400 | 700 | | 11 |
| 12 x 12 x 1 | 11-1/2 x 11-1/2 x 3/4 | 300 | 500 | | 14 |
| 12 x 20 x 1 | 11-1/2 x 19-1/2 x 3/4 | 500 | 850 | | 14 |
| 12 x 24 x 1 | 11-3/8 x 23-3/8 x 3/4 | 600 | 1000 | | 14 |
| 14 x 20 x 1 | 13-1/2 x 19-1/2 x 3/4 | 600 | 1000 | | 16 |
| 14 x 25 x 1 | 13-1/2 x 24-1/2 x 3/4 | 750 | 1200 | | 16 |
| 15 x 20 x 1 | 14-1/2 x 19-1/2 x 3/4 | 650 | 1050 | | 17 |
| 16 x 16 x 1 | 15-1/2 x 15-1/2 x 3/4 | 550 | 900 | | 19 |
| 16 x 20 x 1 | 15-1/2 x 19-1/2 x 3/4 | 650 | 1100 | | 19 |
| 16 x 25 x 1 | 15-1/2 x 24-1/2 x 3/4 | 850 | 1400 | | 19 |
| 18 x 20 x 1 | 17-1/2 x 19-1/2 x 3/4 | 750 | 1250 | | 21 |
| 18 x 24 x 1 | 17-3/8 x 23-3/8 x 3/4 | 900 | 1500 | | 21 |
| 18 x 25 x 1 | 17-1/2 x 24-1/2 x 3/4 | 950 | 1550 | | 21 |
| 20 x 20 x 1 | 19-1/2 x 19-1/2 x 3/4 | 850 | 1400 | | 24 |
| 20 x 25 x 1 | 19-1/2 x 24-1/2 x 3/4 | 1050 | 1750 | | 24 |
| 24 x 24 x 1 | 23-3/8 x 23-3/8 x 3/4 | 1200 | 2000 | | 29 |
| 25 x 25 x 1 | 24-1/2 x 24-1/2 x 3/4 | 1300 | 2200 | | 30 |
| | | | | | **2"** |
| 10 x 20 x 2 | 9-1/2 x 19-1/2 x 1-3/4 | 400 | 700 | 850 | 11 |
| 12 x 20 x 2 | 11-1/2 x 19-1/2 x 1-3/4 | 500 | 850 | 1050 | 14 |
| 12 x 24 x 2 | 11-3/8 x 23-3/8 x 1-3/4 | 600 | 1000 | 1250 | 14 |
| 14 x 25 x 2 | 13-1/2 x 24-1/2 x 1-3/4 | 750 | 1200 | 1500 | 16 |
| 15 x 20 x 2 | 14-1/2 x 19-1/2 x 1-3/4 | 650 | 1050 | 1300 | 17 |
| 15 x 25 x 2 | 14-1/2 x 24-1/2 x 1-3/4 | 800 | 1300 | 1650 | 17 |
| 16 x 16 x 2 | 15-1/2 x 15-1/2 x 1-3/4 | 550 | 900 | 1100 | 19 |
| 16 x 20 x 2 | 15-1/2 x 19-1/2 x 1-3/4 | 650 | 1100 | 1400 | 19 |
| 16 x 24 x 2 | 15-3/8 x 23-3/8 x 1-3/4 | 800 | 1350 | 1650 | 19 |
| 16 x 25 x 2 | 15-1/2 x 24-1/2 x 1-3/4 | 850 | 1400 | 1750 | 19 |
| 18 x 25 x 2 | 17-1/2 x 24-1/2 x 1-3/4 | 950 | 1550 | 1950 | 21 |
| 18 x 24 x 2 | 17-3/8 x 23-3/8 x 1-3/4 | 900 | 1500 | 1900 | 21 |
| 20 x 20 x 2 | 19-1/2 x 19-1/2 x 1-3/4 | 850 | 1400 | 1750 | 24 |
| 20 x 24 x 2 | 19-3/8 x 23-3/8 x 1-3/4 | 1000 | 1650 | 2100 | 24 |
| 20 x 25 x 2 | 19-1/2 x 24-1/2 x 1-3/4 | 1050 | 1750 | 2150 | 24 |
| 24 x 24 x 2 | 23-3/8 x 23-3/8 x 1-3/4 | 1200 | 2000 | 2500 | 29 |
| 25 x 25 x 2 | 24-1/2 x 24-1/2 x 1-3/4 | 1300 | 2150 | 2700 | 30 |

PerfectPleat filters are classified U.L. Class 2. Testing was performed according to U.L. Standard 900 and CAN 4-S111.
*1-inch filters are constructed the same as 2" filters except they have straps on both air entering and air leaving sides.
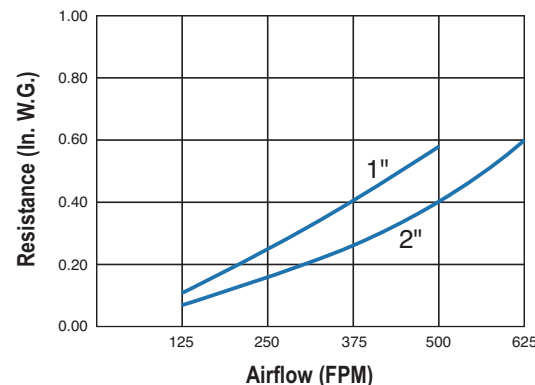
## Composite Minimum Efficiency
### Efficiency Vs. Particle Size



## Resistance to Airflow



## Performance Data

| Filter | Pleats Per Lineal Foot | Rated Initial Resistance (In. W.G.) 300 FPM | 500 FPM | 625 FPM | Recommended Final Resistance (In. W. G.) | ASHRAE 52.2 MERV | Continuous Operating Temperature Limits |
|---|---|---|---|---|---|---|---|
| 1" PerfectPleat ULTRA | 15 | **.29** | .59 | — | 1.0 | 8 | 170°F / 76°C |
| 2" PerfectPleat ULTRA | 15 | .20 | **.40** | .52 | 1.0 | 8 | 170°F / 76°C |