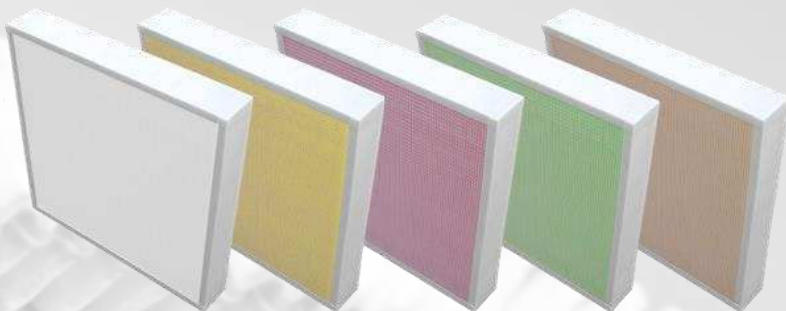
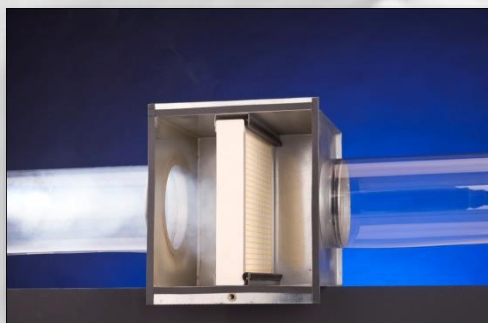




# PERFORMANCE DATA SHEET 4" Mini Pleat



## THE FULLY SYNTHETIC SOLUTION TO YOUR FILTRATION NEEDS



## MAKE THE AEOLUS 4 INCH MINI PLEAT YOUR CHOICE:

- ✓ Superior media area, compact size
- ✓ Fewer filter changes
- ✓ Optimum filter for most applications
- ✓ Outstanding pleat stability
- ✓ Improved frame rigidity
- ✓ Incinerable construction
- ✓ Waterproof construction
- ✓ Helps to meet LEED criteria
- ✓ Lower cost of ownership

Our 4 inch All Synthetic Mini Pleat Panel Filter gives you an incredible amount of filter media area having up to several times the area of most other filters of the same size.. For many applications the 4 inch Mini Pleat is the best choice, providing an excellent service life at low overall energy costs.

**DESIGN.** Aeolus 4 inch Mini Pleat Panel Filters feature synthetic microfiber filter media with a 3-dimensional, progressive design for optimum dust holding capacities. Our Aetec Filters ("AT" products) even contain nanofibers which are uniquely integrated into the filter media to capture the smallest particles. All our fibers are produced in a solvent-free, melt-based and environmentally friendly proprietary process and do not contain any chemical binder. The endless fibers are highly damage resistant and totally non-shedding.

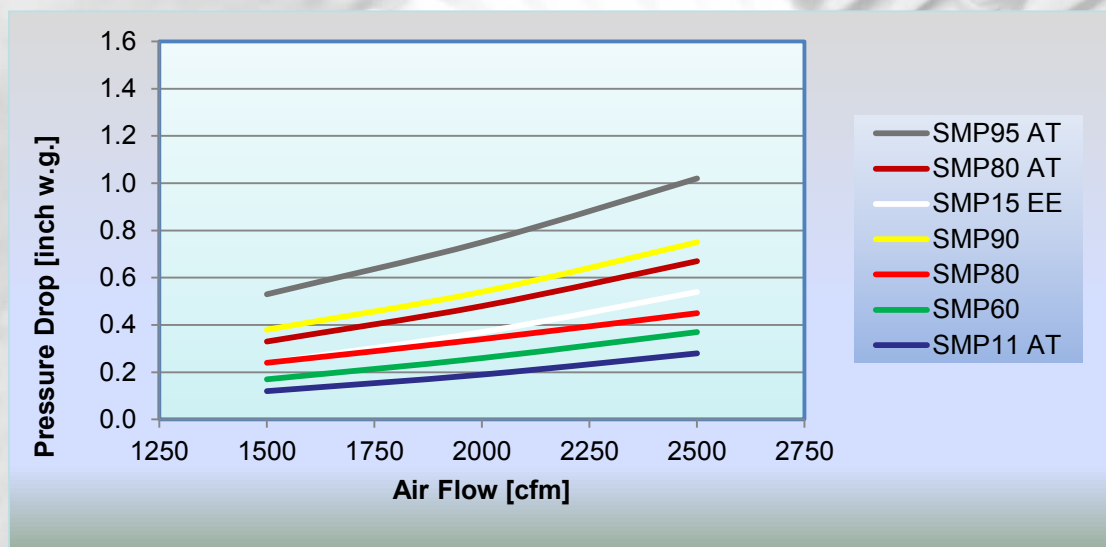
**PLEAT TECHNOLOGY.** Aeolus filters provide a unique pleating technology that leads to the excellent product strength Aeolus filters are known for. It also helps maintain the perfect V-shaped pleat geometry throughout handling and service life. Optimum air flow is assured under all operating conditions.

**APPLICATIONS.** Aeolus 4 inch Mini Pleat Panel Filters are used in a wide variety of applications where a long service life is important. The large media area and the high dust holding capacities lead to fewer filter changes and lower energy costs as pressure drop remains low for longer periods. The high mechanical efficiency of Aeolus filters helps to assure a higher level of indoor air quality to protect people and equipment from the effects of airborne contaminants.



## TECHNICAL DATA 4" Mini Pleat

Product	MERV classification	Air Flow [cfm]		
		1500	2000	2500
SMP95 AT	MERV 16/15-A	0.53	0.75	1.02
SMP15 EE	MERV 15	0.24	0.37	0.54
SMP80 AT	MERV 14/13-A	0.33	0.48	0.67
SMP90	MERV 14	0.38	0.54	0.75
SMP80	MERV 13	0.24	0.34	0.45
SMP60	MERV 12	0.17	0.26	0.37
SMP11 AT	MERV 11	0.12	0.19	0.28



**Fig. 1: Pressure Drop Data of Aeolus 4 inch Mini Pleat Panel Filters**  
24x24x4", recommended airflow: 2000 cfm / 500 fpm  
*Independently Tested*

UL 900 Class 1 U.S. certified

Standard and special sizes available

Inherent antimicrobial properties

Completely hydrophobic

Continuous operating temperature up to 175° F (80° C), short term 210° F (100° C)

Can be operated up to 125% of rated air flow

Recommended final resistance is 1.50 in w.g., higher resistances are possible – please ask



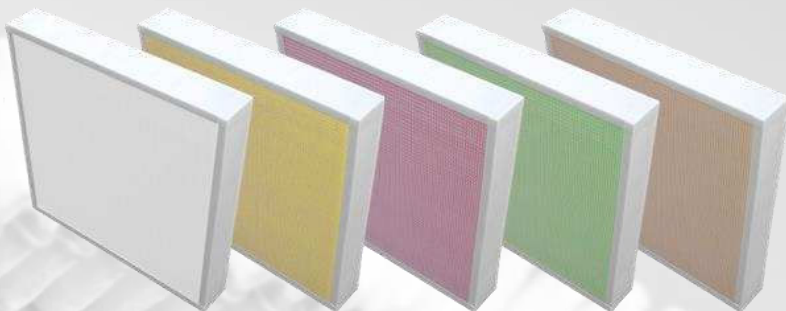
P.O. Box 23773  
Tigard, OR 97281-3773

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Fax: 503.968.3262  
[www.AirfiltersNW.com](http://www.AirfiltersNW.com)





## PERFORMANCE DATA SHEET 2" Mini Pleat



### THE FULLY SYNTHETIC SOLUTION TO YOUR FILTRATION NEEDS



Our 2 inch All Synthetic Mini Pleat Panel Filter gives you an incredible amount of media area having 4 to 5 times the area of most pleated filter of the same size. Together with being 100 % waterproof and having industry leading product rigidity and blow out strength you will experience superior air quality and long service life. Aeolus Filters are built to last and perform even in the toughest applications.

**DESIGN.** Aeolus 2 inch Mini Pleat Panel Filters feature synthetic microfiber filter media with a 3-dimensional, progressive design for optimum dust holding capacities. Our Aetec Filters ("AT" products) even contain nanofibers which are uniquely integrated into the filter media to capture the smallest particles. All our fibers are produced in a solvent-free, melt-based and environmentally friendly proprietary process and do not contain any chemical binder. The endless synthetic fibers are highly damage resistant and produce a filter that unlike other synthetic and fiberglass filters is totally non-shedding.

### MAKE THE AEOLUS 2 INCH MINI PLEAT YOUR CHOICE:

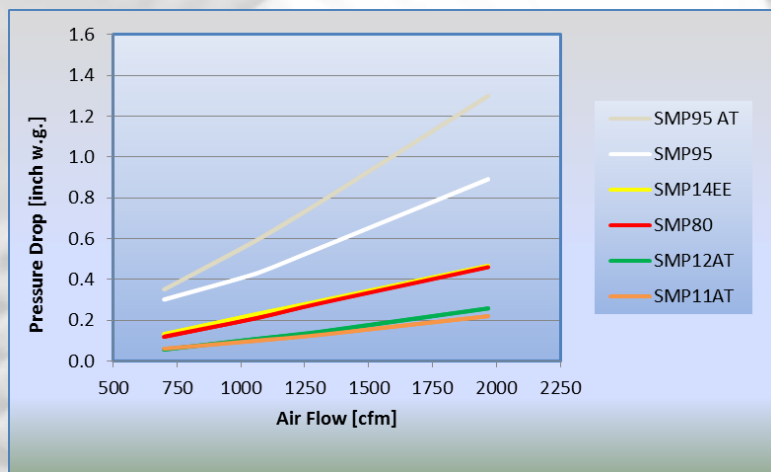
- ✓ Superior media are, compact size
- ✓ Fewer filter changes
- ✓ Wide range of efficiencies
- ✓ Outstanding pleat stability
- ✓ Improved frame rigidity
- ✓ Low storage and shipping costs
- ✓ Waterproof construction
- ✓ Helps to meet LEED criteria

**APPLICATIONS.** Aeolus 2 inch Mini Pleat Panel Filters are used in a variety of applications where technical reliability and a long service life are a must. From HVAC systems in office buildings, schools and factories to the extreme environment of hazardous waste removal and reclamation, Aeolus offers solutions for all your filtration challenges. The high efficiency Aeolus filters allow the replacement of glass fiber filters, even in sensitive applications such as the pharmaceutical industry, health care facilities and as pre-filters in clean rooms. Aeolus services all applications with now downstream release of shedded fibers. Due to the 100% synthetic construction Aeolus offers unsurpassed performance in humid and wet environments and will not support microbial growth.



## TECHNICAL DATA 2" Mini Pleat

Product	Efficiency range	MERV classification	Air Flow [cfm]			
			700	1060	1300	1968
SMP95 AT	95-100%	MERV 16	0.35	0.59	0.77	1.30
SMP95	90-98%	MERV 15	0.30	0.43	0.55	0.89
SMP14EE	90-95%	MERV 14	0.13	0.23	0.29	0.47
SMP80	80-90%	MERV 13	0.12	0.21	0.28	0.46
SMP12AT	70-75%	MERV 12	0.06	0.11	0.14	0.26
SMP11AT	50-55%	MERV 11	0.06	0.10	0.13	0.22




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 www.AirfiltersNW.com  
 Air Filters Northwest, Inc.

**Fig. 1: Pressure Drop Data of Aeolus 2 inch Mini Pleat Panel Filters 24x24x2", Higher air flows possible**



UL 900 Class 2 U.S. certified

Standard and special sizes available



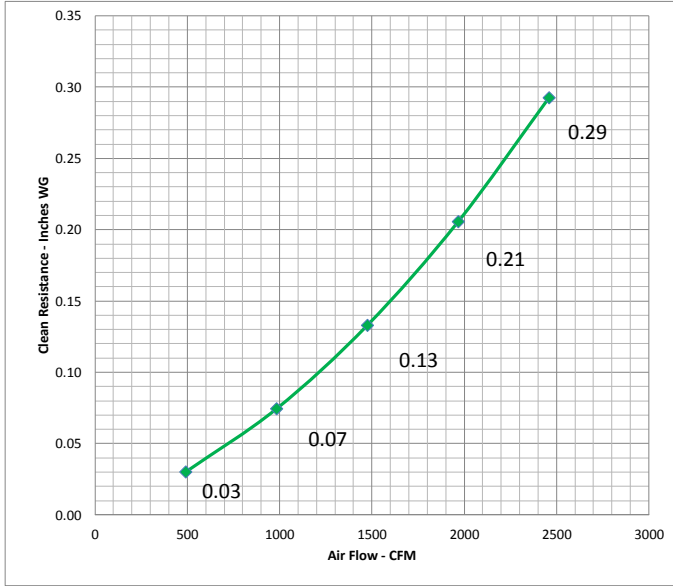

Inherent antimicrobial properties

Completely hydrophobic

Continuous operating temperature up to 175° F (80° C), short term up to 210° F (100° C)

Can be operated up to 125% of rated air flow, higher air flow of up to 500 fpm is possible – please ask factory

Recommended final resistance is 1.50 in w.g., higher pressure drops are possible – please ask

 <p>270 Haven Hill Road      Shelbyville, KY 40065  Phone: 502 494 5797      E-Mail: monroebritt@bellsouth.net</p>	<p align="center"><b>Air Filter</b></p> <p align="center"><b>Test Report</b></p>	Report No. <b>GLT 1963</b>												
		14-Jan-13												
		Page: 1 of 3												
<p align="center"><b>Full 52.2-2007 ASHRAE Test -- MERV 5 - 16 Procedure</b></p> <p align="center">(Test procedures and apparatus described in ASHRAE Standard 52.2-2007 were used during these tests)</p>														
<p align="center"><b>Filter Description</b></p>		<p align="center"><b>Test Conditions</b></p>												
Manufacturer: Aeolus Corporation Product Name: Synthetic Mini-Pleat Panel Model/Style Code: SMP11AT24244 Nominal Dimensions: (inches) 24w x 24h x 4d Product Description: pleated media with polymer bead separators, plastic frame Number of Filter Panels: 1 Pleat Quantity (visible): 70 Pocket Quantity: n/a Media Type: not specified Media Color: white media Media Area: not calculated Type of Dust Adhesive: None Amount of Dust Adhesive: N/A Filter Procurement Method: Provided by Aeolus		Air Flow (CFM) 1968 Face Velocity (FPM) 492 Air Temperature Range (°F) 65 - 72 Relative Humidity Range (%) 37 - 55 Barometric Pressure Range (In. HG) 29.18 - 29.65 Type of Test Aerosol: KCl Particle Counter: S3I System Filter Loading Dust: ASHRAE												
		<p align="center"><b>Test Results</b></p>												
		Filter Initial Resistance: 0.21 In. wg      Dust Holding Capacity Filter Final Resistance: 1.50 In. wg      294 Grams												
		<p align="center"><b>Filter Resistance vs Air Flow</b></p>												
		<table border="1"> <tr> <td>Air Flow - CFM</td> <td>492</td> <td>984</td> <td>1476</td> <td>1968</td> <td>2460</td> </tr> <tr> <td>Resistance - In. WG</td> <td>0.03</td> <td>0.07</td> <td>0.13</td> <td>0.21</td> <td>0.29</td> </tr> </table>	Air Flow - CFM	492	984	1476	1968	2460	Resistance - In. WG	0.03	0.07	0.13	0.21	0.29
Air Flow - CFM	492	984	1476	1968	2460									
Resistance - In. WG	0.03	0.07	0.13	0.21	0.29									
		<p align="center"><b>KCl Particle Size Efficiency</b></p>												
		<p align="center"><b>Average Minimum Efficiencies</b></p>												
		<table border="1"> <tr> <td>E 1 Range - % 0.3 - 1.0 Micron</td> <td>E2 Range - % 1.0 - 3.0 Micron</td> <td>E3 Range - % 3.0 - 10.0 Micron</td> </tr> <tr> <td align="center">39</td> <td align="center">67</td> <td align="center">88</td> </tr> </table>	E 1 Range - % 0.3 - 1.0 Micron	E2 Range - % 1.0 - 3.0 Micron	E3 Range - % 3.0 - 10.0 Micron	39	67	88						
E 1 Range - % 0.3 - 1.0 Micron	E2 Range - % 1.0 - 3.0 Micron	E3 Range - % 3.0 - 10.0 Micron												
39	67	88												
Additional Information:		<p align="center">See Particle Size Efficiency Curve on Page 2</p> <table border="1"> <tr> <td><b>Minimum Efficiency Ranking Value</b></td> <td><b>MERV 11</b></td> <td><b>Air Flow 1968 CFM</b></td> </tr> </table>	<b>Minimum Efficiency Ranking Value</b>	<b>MERV 11</b>	<b>Air Flow 1968 CFM</b>									
<b>Minimum Efficiency Ranking Value</b>	<b>MERV 11</b>	<b>Air Flow 1968 CFM</b>												
<p align="center"><b>Photograph of Air Entering Side of Filter</b></p>		<p align="center"><b>Filter Resistance vs Air Flow</b></p>												
														
<p align="center"><b>Photograph of Filter Marking/Label</b></p>														
														
Comments:														
Approval: Monroe A. Britt 14-Jan-13														



270 Haven Hill Road Shelbyville, KY 40065  
Phone: 502 494 5797 E-Mail: monroebritt@bellsouth.net

## ASHRAE Air Filter

### Test Report

Report No.

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**14-Jan-13**

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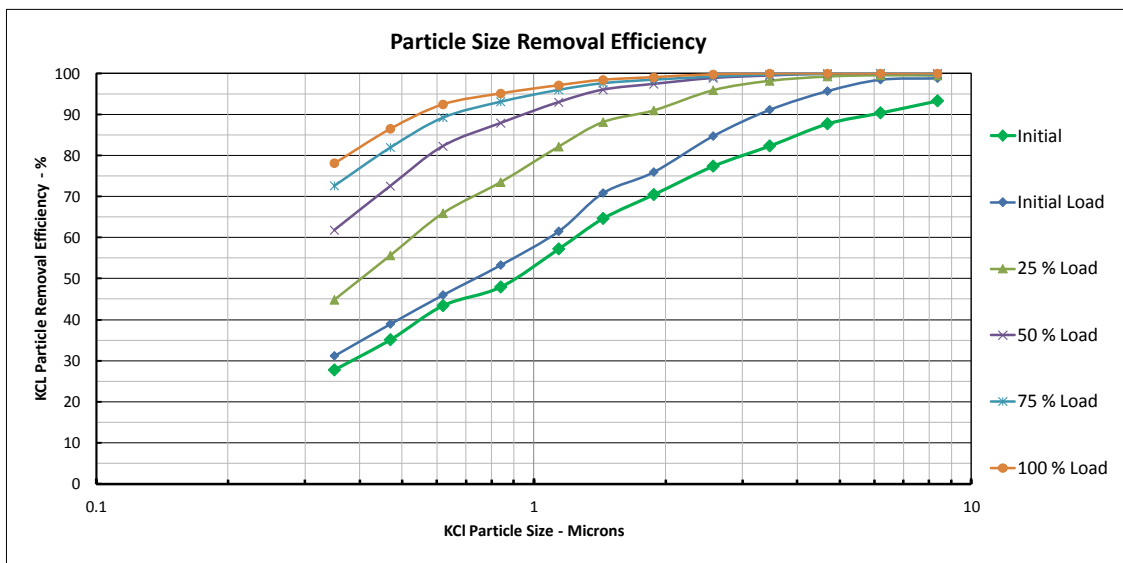
### Full 52.2-2007 ASHRAE Test -- MERV 5 - 16 Procedure

#### Filter Description

Manufacturer: Aeolus Corporation  
Product Name: Synthetic Mini-Pleat Panel  
Model/Style Code: SMP11AT24244  
Nominal Dimensions: (inches) 24w x 24h x 4d  
Media Type: not specified  
Media Color: white media  
Effective Media Area: not calculated  
Filter Procurement Method: Provided by Aeolus

#### Test Conditions

Air Flow Capacity (CFM) 1968  
Face Velocity (FPM) 492  
Air Temperature Range (oF) 65 - 72  
Relative Humidity Range (%) 37 - 55  
Barometric Pressure Range (In. HG) 29.18 - 29.65  
Type of Test Aerosol: KCI  
Particle Counter: S3I System  
Filter Loading Dust: ASHRAE



KCL Particle Range - Microns	0.30 - 0.40	0.4 - 0.55	0.55 - 0.70	0.70 - 1.00	1.00 - 1.30	1.30 - 1.60	1.60 - 2.20	2.20 - 3.00	3.00 - 4.00	4.00 - 5.50	5.50 - 7.00	7.00 - 10.0	Resistance after Load - In. WG	Accumulative Dust Load - Grams	
Mean Diameter - Microns	0.35	0.47	0.62	0.84	1.14	1.44	1.88	2.57	3.46	4.69	6.2	8.37			
	KCL Particle Size Efficiency - %														
Initial	27.76	35.12	43.42	47.95	57.23	64.65	70.46	77.38	82.31	87.70	90.36	93.29	0.21	0.0	
Initial Load	31.18	38.94	46.00	53.29	61.51	70.83	75.94	84.69	91.09	95.65	98.44	98.79	0.25	30.0	
25 % Load	44.82	55.62	65.90	73.46	82.11	88.10	90.93	95.85	98.14	99.20	99.50	99.44	0.54	152.6	
50 % Load	61.75	72.49	82.20	87.83	92.91	95.94	97.33	98.77	99.38	99.85	99.90	99.92	0.88	218.0	
75 % Load	72.59	81.90	89.17	93.05	95.93	97.56	98.41	99.17	99.65	99.80	99.97	99.66	1.20	265.9	
100 % Load	78.09	86.46	92.39	95.04	97.04	98.34	98.98	99.68	99.90	99.90	99.90	99.90	1.50	301.6	
Minimum PSE'S	27.76	35.12	43.42	47.95	57.23	64.65	70.46	77.38	82.31	87.70	90.36	93.29			
E Values - %	Avg Effic - 0.3 to 1.0 Microns			38.56		Avg Effic - 1.0 to 3.0 Microns			67.43		Avg Effic - 3.0 to 10.0 Microns			88.41	
Minimum Efficiency Reporting Value (MERV) =						11		@	1968		CFM		Face Velocity 492 FPM		
													1.50	Inches WG	
													294	Grams	

#### Comments

Approval: Monroe A. Britt  
14-Jan-13



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## ASHRAE Air Filter

### Test Report

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### Full 52.2-2007 ASHRAE Test -- MERV 5 - 16 Procedure

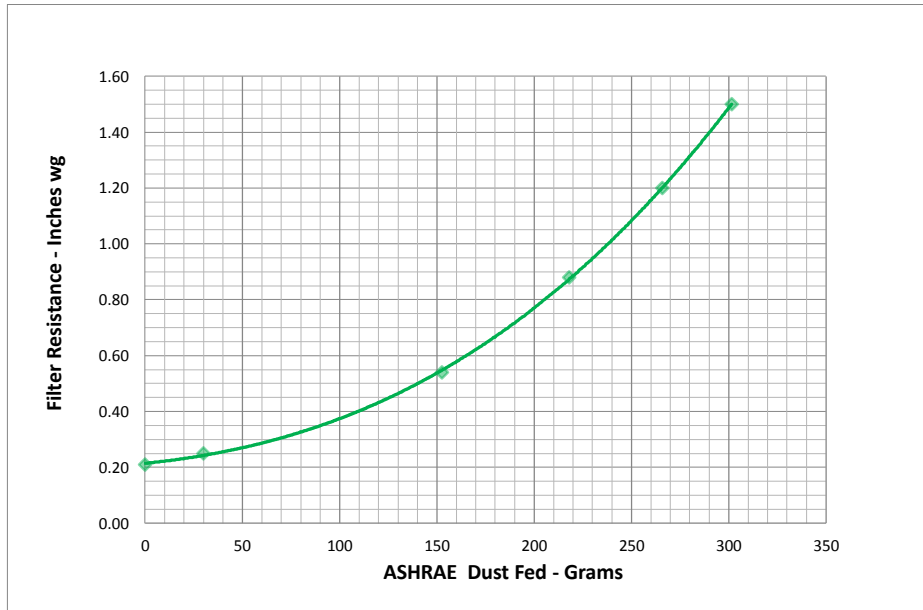
Filter Description		Test Conditions	
Manufacturer:	Aeolus Corporation	Air Flow Capacity (CFM)	1968
Product Name:	Synthetic Mini-Pleat Panel	Face Velocity (FPM)	492
Model/Style Code:	SMP11AT24244	Air Temperature Range (oF)	65 -72
Nominal Dimensions: (inches)	24w x 24h x 4d	Relative Humidity Range (%)	37 - 55
Media Type:	not specified	Barometric Pressure Range (In. HG)	29.18 - 29.65
Media Color:	white media	Type of Test Aerosol:	KCl
Effective Media Area:	not calculated	Particle Counter:	S3I System
Filter Procurement Method:	Provided by Aeolus	Filter Loading Dust:	ASHRAE

### Dust Holding Capacity and Arrestance Data

Dust Fed - Grams	0	30	152.6	218	265.9	301.6
Filter Resistance - In. wg	0.21	0.25	0.54	0.88	1.20	1.50

Average Arrestance	97.3%	Final Resistance	1.50 In. wg
--------------------	-------	------------------	-------------

Dust Holding Capacity	293.5 Grams
-----------------------	-------------



Comments:

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14-Jan-13



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