



AIR FILTER TESTING LABORATORIES, INC.

4632 Old LaGrange Road • Buckner, Kentucky 40010

Phone (502) 222-5720 • Fax (502) 222-9881

ASHRAE STANDARD 52.1-1992 STATICALLY TESTED DEVICES

DEVICE TESTED

REPORT NO.
13692

TEST NO.
1

SHEET NO.
1

Test Requested By **TENCATE**
 Manufacturer **TENCATE**
 Test Sample Procurement **FURNISHED BY MANUFACTURER**
 Product Name **3D BLUE/BLACK FILTER FABRIC**
 Model No.
 Dimensions **24 IN. H X 24 IN. W X 0.125 IN. D (NOMINAL)**
 Product Description

TEST RESULTS - see attached performance curves

Test Airflow Rate	1200	ft ³ /min (cfm)
Initial Resistance	0.08	in. w.g.
Final Resistance	1.00	in. w.g.
Initial Atmospheric Dust Spot Efficiency	< 20	%
Average Atmospheric Dust Spot Efficiency	< 20	%
Average ASHRAE Dust Weight Arrestance	62	%
ASHRAE Dust Holding Capacity	98	g
Test Section Duct Size	24.0 x 24.0	in
Test Dust	ASHRAE	
Test Dust Feed Rate	2.0	g/1000 ft ³

PHYSICAL DESCRIPTION

Face Dimension (Nom. Height)	24.00	in. H
Face Dimension (Nom. Width)	24.00	in. W
Depth Dimension (Nom. Depth)	0.125	in. D
Media Area (Gross)	4.0	ft ²
Media Area (Net Effective)	4.0	ft ²
Inlet Open Area (IOA)	4.00	ft ²
Type Of Media	SYNTHETIC (POLYPROPYLENE)	
Type And Amount Of Dust Adhesive	NONE	

DATE
04-15-2008

TEST SUPERVISOR
J.P.S.

**ADMINISTRATIVE
APPROVAL**

Michael A. Murphy





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ASHRAE STANDARD 52.1-1992 - PERFORMANCE CURVES STATICALLY TESTED DEVICES

PERFORMANCE CURVES

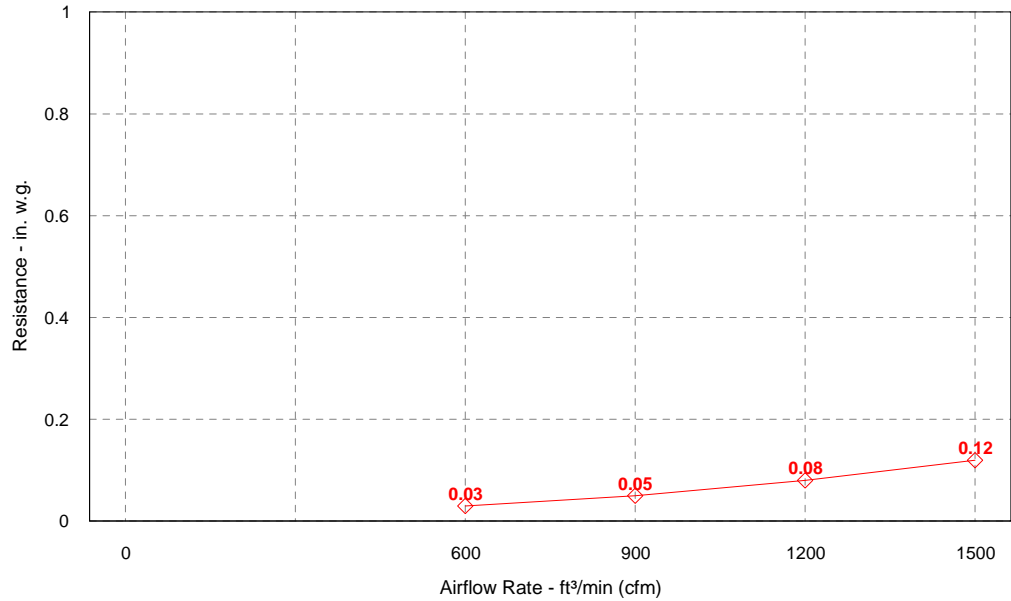
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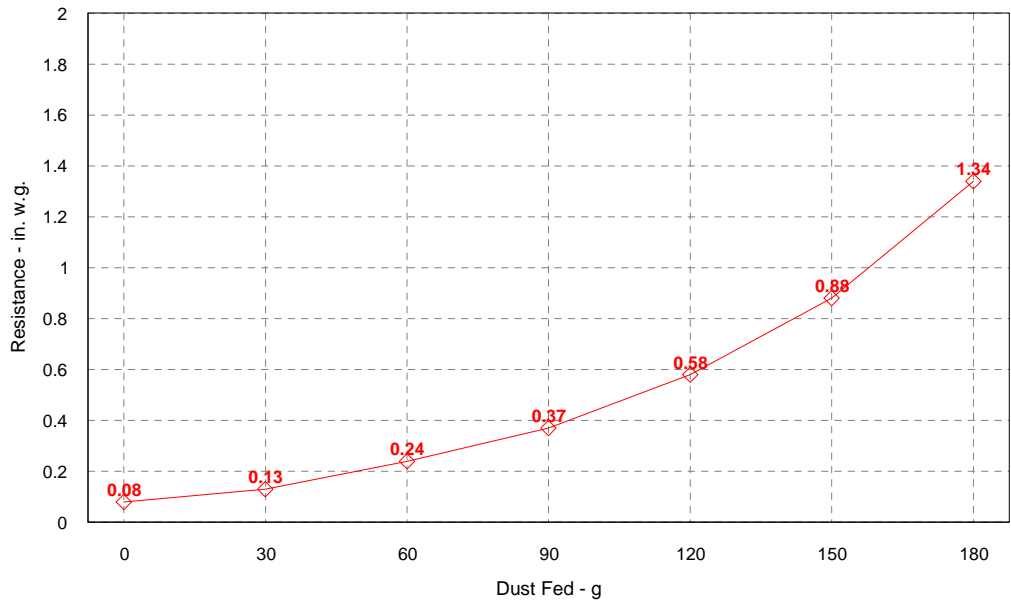
CLEAN DEVICE

Airflow -vs- Initial Resistance



DUST FED -vs- RESISTANCE

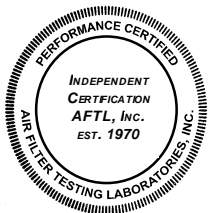
Dust Increment - 30 g ASHRAE



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PERFORMANCE CURVES

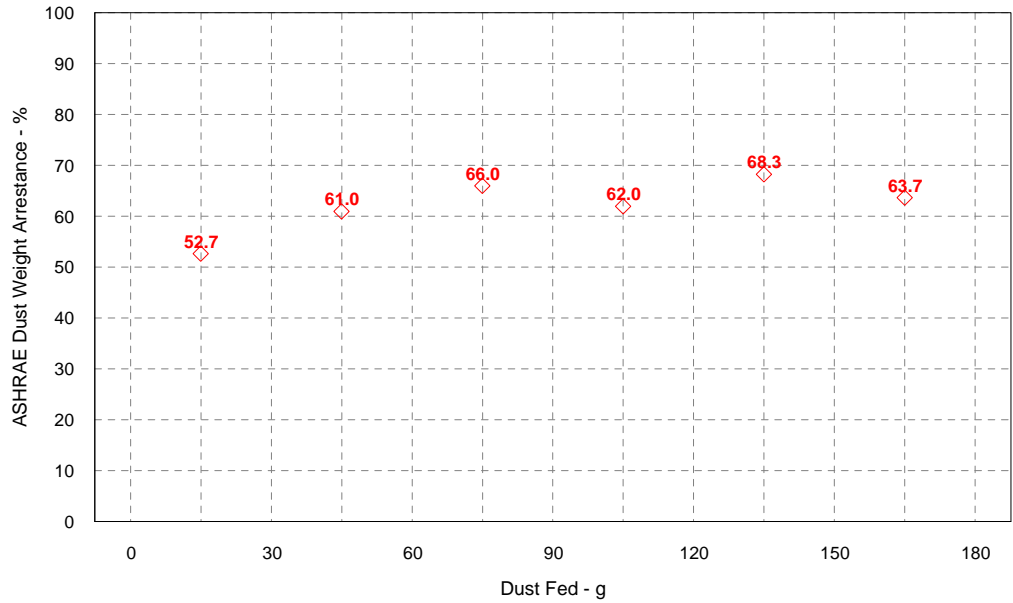
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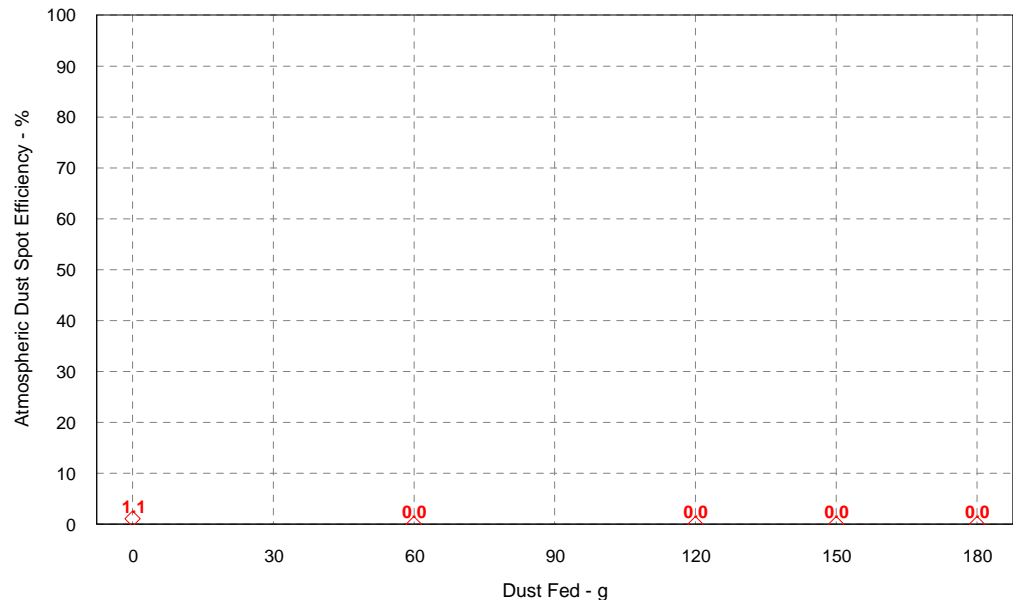
DUST FED -vs- ARRESTANCE

Dust Increment - 30 g ASHRAE



DUST FED -vs- ATMOS. DUST SPOT EFFICIENCY

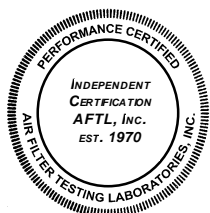
Dust Increment - 30 g ASHRAE



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ASHRAE STANDARD 52.2-1999 REMOVAL EFFICIENCY BY PARTICLE SIZE (0.3 to 10.0 µm; KCI)

REPORT NO.
13691

TEST NO.
1

SHEET NO.
1

DEVICE TESTED

Test Requested By **TENCATE**
 Manufacturer **TENCATE**
 Test Sample Procurement **FURNISHED BY MANUFACTURER**
 Product Name **3D BLUE/BLACK FILTER FABRIC**
 Model No.
 Dimensions **610 mm H X 610 mm W X 3 mm D (NOMINAL)**

DEVICE DESCRIPTION

Generic Device Classification / Type	PANEL FILTER	
Number Of Pleats / Pockets	N/A	no.
Number Of Banks	N/A	no.
Face Dimension (Nom. Height)	610	mm H
Face Dimension (Nom. Width)	610	mm W
Depth Dimension (Nom. Depth)	3	mm D
Media Area (Net Effective)	0.37	m ²
Type Of Media	SYNTHETIC (POLYPROPYLENE)	
Type And Amount Of Adhesive	NONE	
Product Description		

TEST CONDITIONS

Test Airflow Rate	2040	m ³ /hr
Test Aerosol Type	KCI	
Test Dust Type	ASHRAE	
Test Dust Feed Rate	71.0	mg/m ³
Device Test Section Duct Size	610 x 610	mm
Final Device Resistance	250	Pa
Air Temperature	23.0	°C
Relative Humidity	50	%
Optical / Aerodynamic Particle Counter(s); OPC / APC	CLIMET INST. / CI-500 (laser)	
Remarks/ Note		

TEST RESULTS - see attached performance curves

Initial Device Resistance	20	Pa		
Final Device Resistance	250	Pa		
Composite Average Minimum Efficiencies	E1 (0.3 - 1.0 µm)	E2 (1.0 - 3.0 µm)	E3 (3.0 - 10.0 µm)	%
	1	7	24	
Minimum Efficiency Reporting Value (MERV)	MERV 5 @ 2040 m³/hr			
Average ASHRAE Dust Weight Arrestance	N/A	%		
ASHRAE Dust Holding Capacity	N/A	g		

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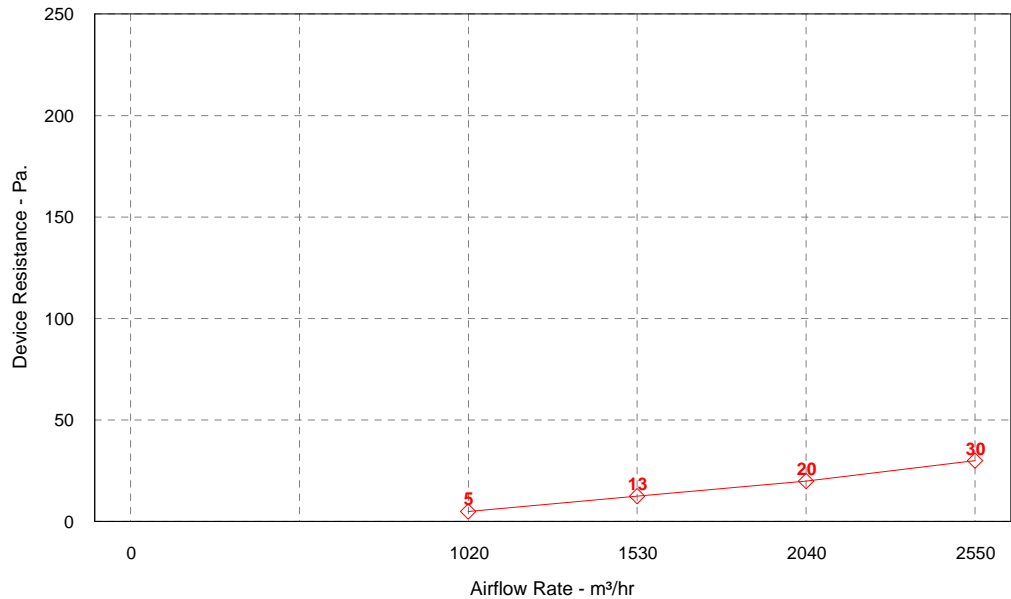
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**ASHRAE STANDARD 52.2-1999 - PERFORMANCE CURVES
REMOVAL EFFICIENCY BY PARTICLE SIZE (0.3 to 10.0 μm ; KCI)**

PERFORMANCE CURVES

CLEAN DEVICE

Airflow Rate -vs- Initial Device Resistance



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PERFORMANCE CURVES

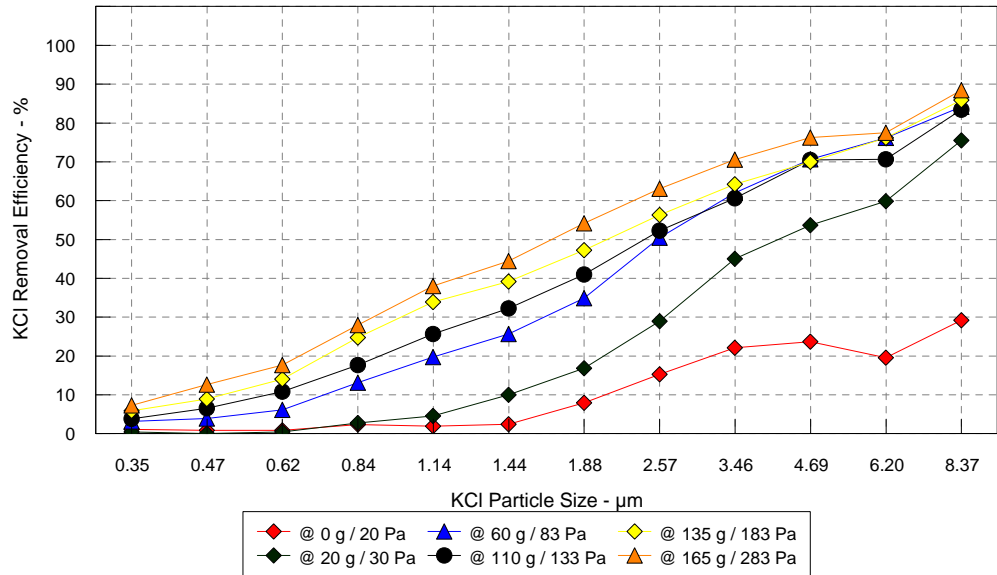
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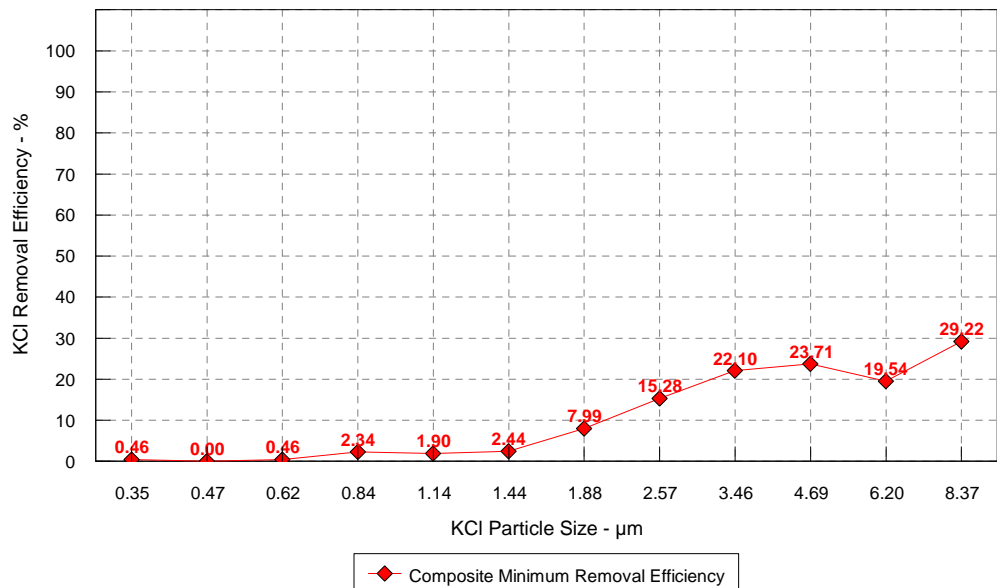
PARTICLE SIZE -vs- REMOVAL EFFICIENCY

Incremental KCI Particle Size Removal Efficiency



PARTICLE SIZE -vs- REMOVAL EFFICIENCY

Composite Minimum KCI Particle Size Removal Efficiency



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