



3040 E. Cornwallis Road • PO Box 12194 • Research Triangle Park, NC 27709-2194 • USA
Telephone +1.919.541.6941 • Fax +1.919.541.6936 • mko@rti.org • www.rti.org

EXAMPLE ASHRAE 52.2-2012 TEST REPORT

Manufacturer: Filter Company
Product Name: Air Filter

RTI Report No. BXmmdyy00

Test Laboratory:
RTI
3040 Cornwallis Road
Research Triangle Park, NC 27709
919-541-6941
mko@rti.org

ASHRAE Std. 52.2 Air Cleaner Performance Report Summary

This report applies to the tested device only.

Laboratory Data

RTI Report No.	<u>BXmmdyy00</u>	Date	<u>MM/DD/YYYY</u>
Test Laboratory	<u>RTI International</u>		
Operator	<u>Clayton</u>	Supervisor	<u>Owen/Hanley</u>
Particle Counter(s):	Brand <u>Climet</u>	Model	<u>500</u>

Device Manufacturer's Data

Manufacturer	<u>Filter Company</u>		
Product Name	<u>Air Filter</u>		
Product Model	<u>AF2424</u>		
Test requested by	<u>Filter Company</u>		
Sample obtained from	<u>Filter Company</u>		
Catalog rating:	Airflow rate <u>NA</u>	Initial dP (in. wg)	<u>NA</u>
Specified test conditions:	Airflow (cfm) <u>1968</u>	Final dP (in. wg)	<u>1.00</u>
	Face Velocity (fpm) <u>492</u>		

Device Description

Nominal Dimensions (in.):	<u>24 x 24 x 2</u> (height x width x depth)		
Generic name	<u>pleated panel</u>	Media color	<u>white</u>
Amount and type of adhesive	<u>NA</u>		
Other attributes	<u>17 pleats</u>		

Test Conditions

Airflow (cfm)	<u>1968</u>	Temperature (F)	<u>74</u>	RH (%)	<u>45</u>
Face Velocity (fpm)	<u>492</u>	Final Pressure Drop (in. wg)	<u>1.00</u>		
Test aerosol type:	<u>KCl</u>				
Remarks	<u></u>				

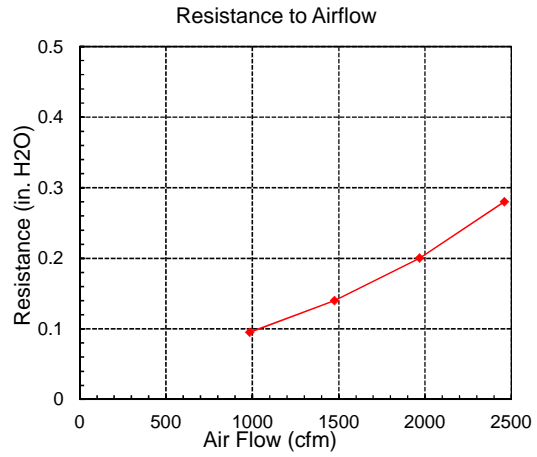
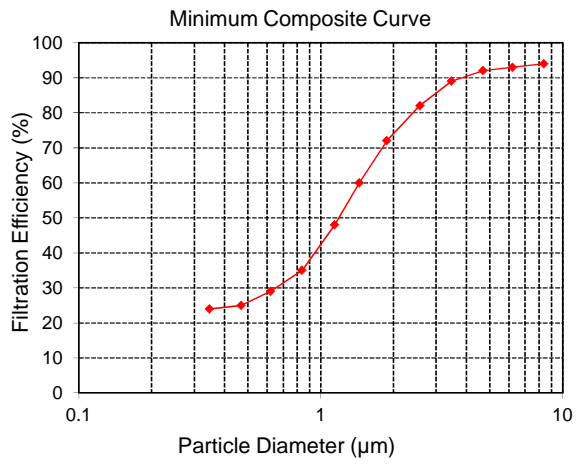
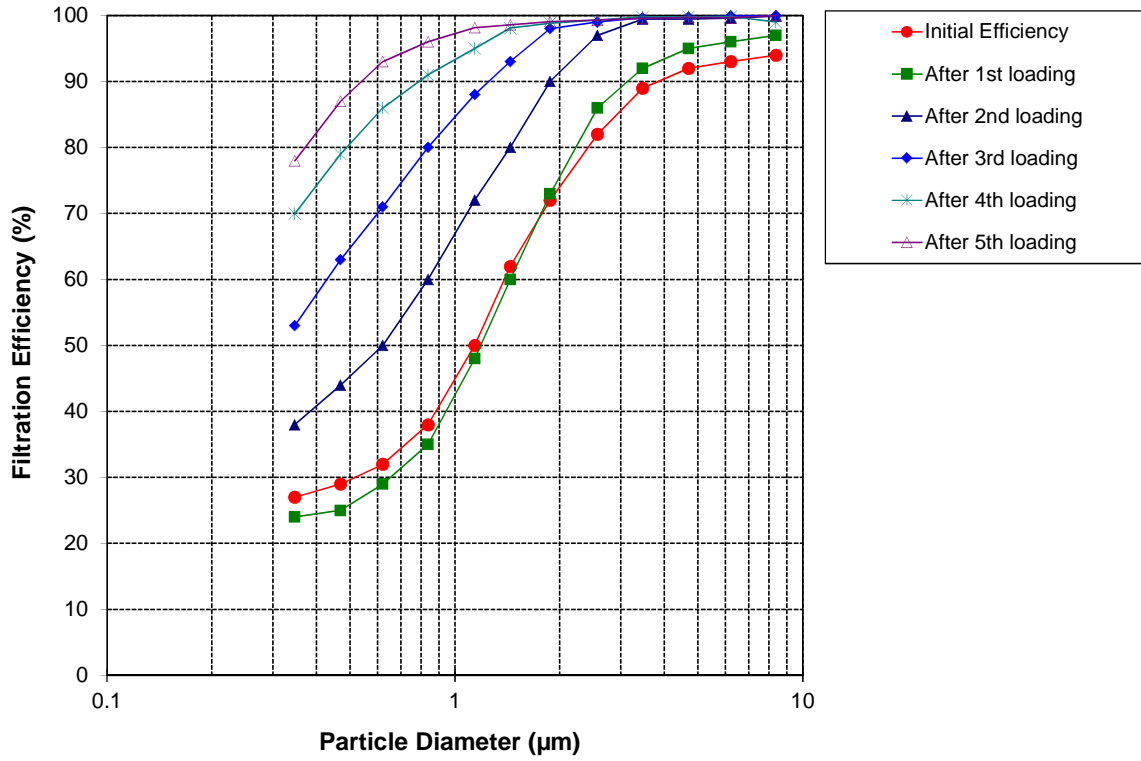
Resistance Test Results

Initial resistance (in. wg)	<u>0.20</u>	Final resistance (in. wg)	<u>1.00</u>
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Minimum Efficiency Reporting Data

Composite average efficiencies	E1 <u>28</u>	E2 <u>66</u>	E3 <u>92</u>
Minimum efficiency reporting value (MERV) for the device:	<u>11</u> @ <u>1968</u> cfm		
Air cleaner average Arrestance (A_{AVG}):	<u>94</u> %		
Dust Holding Capacity (DHC)	<u>35.2</u> g		

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RTI International



TABULATED DATA SUMMARY

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RTI International

Summary of Test Conditions:

Product Manufacturer	Filter Company
Product Name	Air Filter
Nominal Dimensions (in.)	24 x 24 x 2
Airflow (cfm)	1968
Final Resistance (in. H2O)	1.00

Efficiency (%) per Indicated Size Range

OPC Channel Number	1	2	3	4	5	6	7	8	9	10	11	12
Min. Diam. (µm)	0.3	0.4	0.55	0.7	1	1.3	1.6	2.2	3	4	5.5	7
Max. Diam. (µm)	0.4	0.55	0.7	1	1.3	1.6	2.2	3	4	5.5	7	10
Geo. Mean Diam (µm)	0.35	0.47	0.62	0.84	1.14	1.44	1.88	2.57	3.46	4.69	6.20	8.37

	Run No.												
Initial efficiency	BXmmdyy01	27	29	32	38	50	62	72	82	89	92	93	94
after first dust load	BXmmdyy02	24	25	29	35	48	60	73	86	92	95	96	97
after second dust load	BXmmdyy03	38	44	50	60	72	80	90	97	99	99	100	100
after third dust load	BXmmdyy04	53	63	71	80	88	93	98	99	100	100	100	100
after fourth dust load	BXmmdyy05	70	79	86	91	95	98	99	99	100	100	100	99
after fifth dust load	BXmmdyy06	78	87	93	96	98	99	99	99	100	100	100	100
Minimum Composite Efficiency		24	25	29	35	48	60	72	82	89	92	93	94

E1 = 28
 E2 = 66
 E3 = 92

MERV = 11

Resistance to Airflow:

Airflow (%)	Airflow (m3/s)	Airflow (cfm)	Air Velocity (fpm)	Air Velocity (m/s)	Resistance (in. H2O)	Resistance (Pa)
50	0.464	984	246	1.250	0.10	24
75	0.697	1476	369	1.875	0.14	35
100	0.929	1968	492	2.499	0.20	50
125	1.161	2460	615	3.124	0.28	70

Resistance to Airflow with Loading at 1968 cfm

	Resistance (in. H2O)	Resistance (Pa)	Dust Fed (g)
Initial	0.20	50	
After first dust load	0.24	60	2.9
After second dust load	0.40	100	12.0
After third dust load	0.60	149	9.2
After fourth dust load	0.80	199	6.3
After fifth dust load	1.00	249	4.8

Dust Holding Capacity (DHC) 35.2 g
 Arrestance (A_{AVG}) 94 %

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 RTI International

Summary of Test Conditions:

Product Manufacturer	Filter Company
Product Name	Air Filter
Nominal Dimensions (in.)	24 x 24 x 2
Airflow (cfm)	1968

Release Rate (%) per Indicated Size Range

OPC Channel Number	1	2	3	4	5	6	7	8	9	10	11	12
Min. Diam. (µm)	0.3	0.4	0.55	0.7	1	1.3	1.6	2.2	3	4	5.5	7
Max. Diam. (µm)	0.4	0.55	0.7	1	1.3	1.6	2.2	3	4	5.5	7	10
Geo. Mean Diam (µm)	0.35	0.47	0.62	0.84	1.14	1.44	1.88	2.57	3.46	4.69	6.20	8.37
after first dust load	0	0	0	0	0	0	0	0	0	0	0	0
after second dust load	0	0	0	0	0	0	0	0	0	0	0	0
after third dust load	0	0	0	0	0	1	0	0	1	2	0	0
after fourth dust load	0	0	0	0	0	0	0	1	0	0	0	1
after fifth dust load	0	0	0	0	0	0	0	1	1	0	1	0