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## **AEROSOL SWATCH TEST REPORT**

<b>Manufacturer:</b>	<b>Media Company</b>
<b>Product Name:</b>	<b>Lot ABC</b>
<b>Replicates:</b>	<b>Sample 1</b>
	<b>Sample 2</b>
	<b>Sample 3</b>
<b>RTI Report No.</b>	<b>SW10100801</b>

**Test Laboratory:  
RTI International  
3040 Cornwallis Road  
Research Triangle Park, NC 27709  
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## Performance of Aerosol Penetration of Fabric Report Summary

This report applies to the tested device only.

### Laboratory Data

RTI Report No.	<u>SW10100801</u>	Date	<u>10-Oct-08</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>Media Company</u>
Product Name	<u>Lot ABC</u>
Replicates	<u>Sample 1 Sample 2 Sample 3</u>
Test requested by	<u>Media Company</u>
Sample obtained from	<u>Media Company</u>
Specified test conditions:	Media dP (in. wg) <u>0.10</u>

### Device Description

Nominal Dimensions (in.):	<u>3.8</u>	(diameter)
Generic name	<u>fabric</u>	
Media color	<u>green</u>	
Liner color	<u>NA</u>	
Other attributes	<u></u>	

### Test Conditions (Test method available from RTI on request.)

Temperature (F)	<u>92</u>	RH (%)	<u>60</u>
Test aerosol type:	<u>oleic acid</u>		
Actual test conditions:	Media dP (in. wg)	Face Velocity (cm/s)	
	Sample 1 <u>0.10</u>	Sample 1	<u>1.84</u>
	Sample 2 <u>0.10</u>	Sample 2	<u>1.75</u>
	Sample 3 <u>0.10</u>	Sample 3	<u>1.95</u>

Remarks

### Selected Efficiency Data

Average Penetration	<u>0.81</u>	@ 0.35 $\mu\text{m}$	<u>0.43</u>	@ 2.57 $\mu\text{m}$
Average Penetration Velocity (cm/s)	<u>NA</u>	@ 0.84 $\mu\text{m}$		

**Table 1. Summary of Aerosol Swatch Tests**

				Particle Size									
				1	2	3	4	5	6	7	8	9	10
OPC Channel Number				0.3	0.4	0.5	0.55	0.7	1	1.3	1.6	2	2.2
Min. Diam. (µm)				0.4	0.5	0.55	0.7	1	1.3	1.6	2	2.2	3
Max. Diam. (µm)				0.35	0.45	0.52	0.62	0.84	1.14	1.44	1.79	2.10	2.57
Geo. Mean Diam (µm)													
<b>Fabric</b>	<b>Face Vel</b>	<b>Filename</b>											
	cm/s												
Sample 1	1.84	SW10100802	Penetration	0.82	0.82	0.81	0.80	0.77	0.75	0.70	0.61	0.52	0.42
			Penetration Velocity cm/s	1.51	1.50	1.49	1.46	1.41	1.37	1.29	1.12	0.95	0.77
Sample 2	1.75	SW10100803	Penetration	0.85	0.84	0.83	0.82	0.79	0.75	0.72	0.66	0.57	0.48
			Penetration Velocity cm/s	1.49	1.47	1.45	1.44	1.39	1.32	1.26	1.16	1.00	0.84
Sample 3	1.95	SW10100804	Penetration	0.75	0.75	0.75	0.74	0.73	0.70	0.66	0.61	0.52	0.40
			Penetration Velocity cm/s	1.46	1.46	1.45	1.44	1.42	1.37	1.29	1.19	1.01	0.78
			Average Penetration	0.81	0.80	0.80	0.79	0.76	0.73	0.69	0.63	0.54	0.43
			Average Penetration Velocity (cm/s)	1.48	1.48	1.46	1.45	1.41	1.35	1.28	1.16	0.99	0.80
Blank Control Test (100% Penetration)			Penetration	1.00	0.99	1.00	0.99	1.00	1.01	0.99	0.99	1.00	1.01
HEPA Control Test (0% Penetration)			Penetration	0.000	0.001	0.000	0.001	0.001	0.001	0.000	0.001	0.002	0.000

Figure 1 Penetration Curves for Triplicate Samples for 10/10/2008

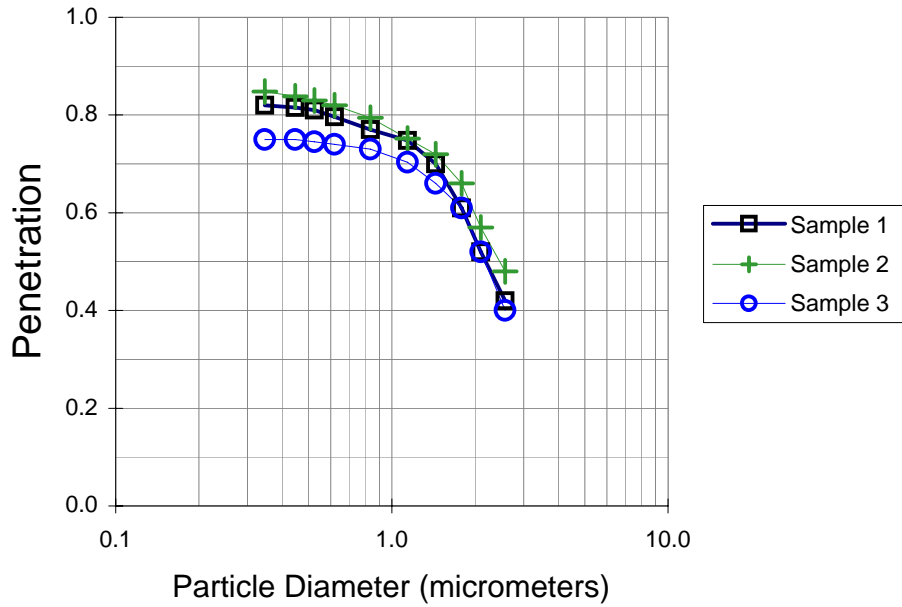


Figure 2 Penetration Velocity Curves for Triplicate Samples for 10/10/2008

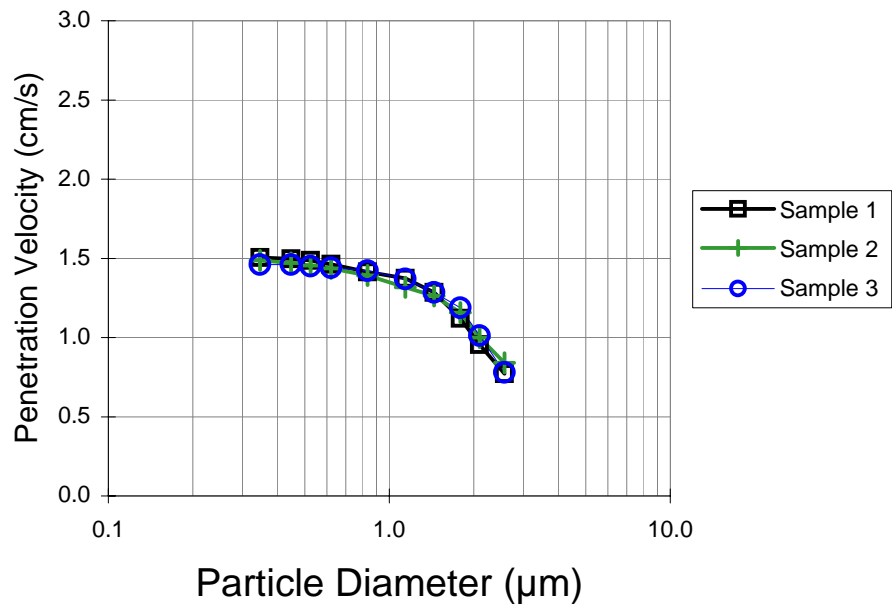


Figure 3 Average Penetration Velocity  
for 10/10/2008

