



2820 S. English Station Road - Louisville, KY 40299

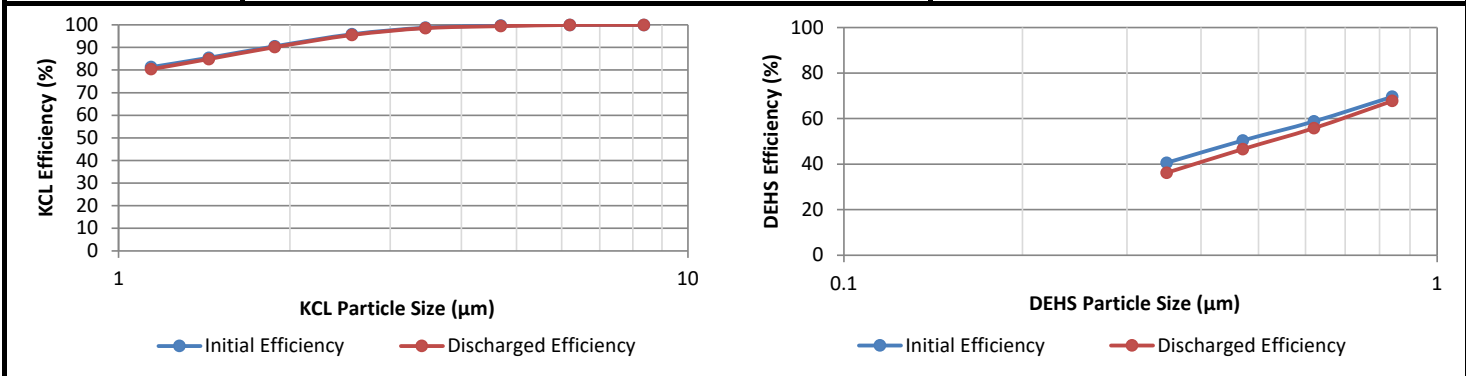
TEST NO. 18-526-1

ISO 16890-2 /-4:2016 Air Filter Test Result Summary

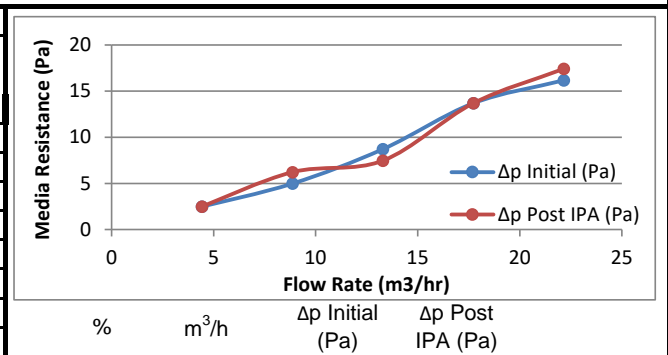
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Counter Information	Manufacturer	TSI, Inc.	Test Conditions	Test Flow Rate	10.5 CFM / 17.84 m ³ /h
	Model No.	3330		Test Aerosol	Aerosolized KCl & DEHS
Serial No.	3330123101	Temperature		77.3 Deg F / 25.2 Deg C	
IPA Discharge Method	<input checked="" type="checkbox"/> Vapor Treated <input type="checkbox"/> IPA Dip Method	Relative Humidity		51.7 %	
				Barometer	29.22 in Hg / 98.95 kPa

Device Tested	Manufacturer	Abalioglu Teknoloji
	Model	HF-STP4720-07
	Dimensions	1.0 ft ² / 0.0929 m ²
	Type of Media	Synthetic
	Media Area	1.0 ft ² / 0.0929 m ²
	Construction	NA
	Filter/Media Electrostatic Charge	No
	Media Color	White
	Media Adhesive	NA
Sample Procurement	Abalioglu Teknoloji	



KCL					
Range (µm)	Geo. Mean	Initial Efficiency (%)	Discharged Efficiency (%)	Upstream Number of Particles per Test	
				Pre	Post
1.0-1.3	1.14	81	80	28175	19816
1.3-1.6	1.44	85	85	19360	13584
1.6-2.0	1.88	91	90	39677	27432
2.0-3.0	2.57	96	96	28052	17494
3.0-4.0	3.46	99	99	15348	8336
4.0-5.5	4.69	100	99	10641	5281
5.5-7.0	6.20	100	100	3920	1984
7.0-10.0	8.37	100	100	3019	1653



%	m ³ /h	Δp Initial (Pa)	Δp Post IPA (Pa)
25	4.43	2.5	2.5
50	8.86	5.0	6.2
75	13.29	8.7	7.5
100	17.72	13.7	13.7
125	22.15	16.2	17.4

DEHS					
Range (µm)	Geo. Mean	Initial Efficiency (%)	Discharged Efficiency (%)	Upstream Number of Particles per Test	
				Pre	Post
0.3-0.4	0.35	41	36	310309	370379
0.4-0.55	0.47	50	47	216094	258279
0.55-0.7	0.62	59	56	149938	180001
0.7-1.0	0.84	70	68	159556	189064

Reporting Data			
	ePM ₁	ePM _{2,5}	ePM ₁₀
Minimum	49%	62%	87%
Average	51%	63%	87%
Reported	50%	60%	85%

Requestor Information	Test Requestor	Aysegul Zumbuller Fener	Phone:	
	Company Name	Abalioglu Teknoloji	Email:	aysegul.fener@abaliogluteknoloji.com.tr
Test Operator Information	Company Address	Sumer Mah, Cal Cad. N 78 20175 Denizli Turke	Requested Date:	10/5/2018
	Test Performed By:	Evan Sparks	Approved by:	
			Completion Date:	10/10/2018

ISO 16890-1										
Data Entry Table							Reporting Data			
DEHS								ePM ₁	ePM _{2,5}	ePM ₁₀
d _i	d _{i+1}	d _m	Δln d _i	E _i	E _{D,i}	E _{A,i}	Minimum	49%	62%	--
0.30	0.40	0.35	0.29	40.6%	36.2%	38.4%	Average	51%	63%	87%
0.40	0.55	0.47	0.32	50.4%	46.6%	48.5%	Reported	50%	60%	85%
0.55	0.70	0.62	0.24	58.8%	55.8%	57.3%				
0.70	1.00	0.84	0.36	69.6%	67.7%	68.7%				
KCL										
1.00	1.30	1.14	0.26	81.3%	80.3%	80.8%				
1.30	1.60	1.44	0.21	85.4%	84.9%	85.1%				
1.60	2.20	1.88	0.32	90.5%	90.1%	90.3%				
2.20	3.00	2.57	0.31	95.8%	95.5%	95.7%				
3.00	4.00	3.46	0.29	98.7%	98.5%	98.6%				
4.00	5.50	4.69	0.32	99.7%	99.4%	99.6%				
5.50	7.00	6.20	0.24	99.9%	99.9%	99.9%				
7.00	10.00	8.37	0.36	100.0%	99.9%	100.0%				
ePM ₁ Calculations										
d _i	d _{i+1}	d _m	Δln d _i	E _{A,i}	q _{3σ}	q _{3σ} *Δln d _i	E _{D,i} *q _{3σ} *Δln d _i	E _{A,i} *q _{3σ} *Δln d _i	E _{min} (PM ₁)	E(PM ₁)
0.30	0.40	0.35	0.29	38.4%	22.627%	0.065095	0.023582	0.025010	49%	51%
0.40	0.55	0.47	0.32	48.5%	19.891%	0.063343	0.029509	0.030712		
0.55	0.70	0.62	0.24	57.3%	15.837%	0.038193	0.021324	0.021888		
0.70	1.00	0.84	0.36	68.7%	11.522%	0.041097	0.027842	0.028218		
Sums:					0.207728	0.102257	0.105828			
ePM _{2,5} Calculations										
d _i	d _{i+1}	d _m	Δln d _i	E _{A,i}	q _{3σ}	q _{3σ} *Δln d _i	E _{D,i} *q _{3σ} *Δln d _i	E _{A,i} *q _{3σ} *Δln d _i	E _{min} (PM _{2,5})	E(PM _{2,5})
0.30	0.40	0.35	0.29	38.4%	22.627%	0.065095	0.023582	0.025010	62%	63%
0.40	0.55	0.47	0.32	48.5%	19.891%	0.063343	0.029509	0.030712		
0.55	0.70	0.62	0.24	57.3%	15.837%	0.038193	0.021324	0.021888		
0.70	1.00	0.84	0.36	68.7%	11.522%	0.041097	0.027842	0.028218		
1.00	1.30	1.14	0.26	80.8%	8.503%	0.022309	0.017925	0.018030		
1.30	1.60	1.44	0.21	85.1%	7.618%	0.015817	0.013423	0.013468		
1.60	2.20	1.88	0.32	90.3%	8.022%	0.025546	0.023024	0.023073		
2.20	3.00	2.57	0.31	95.7%	9.984%	0.030966	0.029572	0.029624		
Sums:					0.302366	0.186201	0.190023			
ePM ₁₀ Calculations										
d _i	d _{i+1}	d _m	Δln d _i	E _{A,i}	q _{3σ}	q _{3σ} *Δln d _i	E _{D,i} *q _{3σ} *Δln d _i	E _{A,i} *q _{3σ} *Δln d _i	E _{min} (PM ₁₀)	E(PM ₁₀)
0.30	0.40	0.35	0.29	38.4%	9.412%	0.027077	0.009809	0.010403	87%	87%
0.40	0.55	0.47	0.32	48.5%	8.395%	0.026733	0.012454	0.012962		
0.55	0.70	0.62	0.24	57.3%	7.432%	0.017924	0.010007	0.010272		
0.70	1.00	0.84	0.36	68.7%	7.014%	0.025016	0.016948	0.017176		
1.00	1.30	1.14	0.26	80.8%	7.628%	0.020013	0.016080	0.016175		
1.30	1.60	1.44	0.21	85.1%	8.833%	0.018340	0.015564	0.015616		
1.60	2.20	1.88	0.32	90.3%	10.804%	0.034406	0.031010	0.031076		
2.20	3.00	2.57	0.31	95.7%	13.726%	0.042573	0.040657	0.040728		
3.00	4.00	3.46	0.29	98.6%	16.708%	0.048067	0.047364	0.047411		
4.00	5.50	4.69	0.32	99.6%	19.542%	0.062233	0.061867	0.061961		
5.50	7.00	6.20	0.24	99.9%	21.671%	0.052261	0.052234	0.052228		
7.00	10.00	8.37	0.36	100.0%	23.143%	0.082545	0.082489	0.082504		
Sums:					0.457189	0.396483	0.398512			

