

Politecnico di Torino - Dipartimento Energia

Efficiency Assessment

Test No.:	5015	Petitioner:	Aerosol Technology Lab
Date:	15/03/2024	Medium:	n ° 1 - PAN15CNC
Measurement no.:	3	Manufacturer:	USP-Sao Carlos
Area [m²]:	0.001	Medium type:	Polyacrylonitrile+cellulose nanocrystals
Filter class:	Lot:		
Aerosol:	DEHS	Air flow rate through filter:	0.000125[m³/s] (0.45[m³/h])
Sampling cycles:	6	Filter air flow resistance [Pa]:	833
Sampling cycle time [s]:	60	Air flow rate entering OPC [cm³/min]:	94
Dilution factor:	1	Correlation ratio:	985-03/15/2024 3:10:46 PM-Masc
Neutralizer:		OPC:	TSI 3340
Conditioned / Discharged	No	Test environment:	22.7 °C /38% /98400Pa
Remarks:	TSI OPS3340A 0.452m3/h 7.5l/min Adattore Diameter 40mm 10cm/s. Delta P= 833Pa Pressione all'interno del condotto=70 Pa		

Size class [nm]	Particle concentration [#/dm³]		Efficiency [%]	Deviation [+/-]	Uncertainty [+/-]	Meaningful cycles
	Upstream	Downstream				
90 - 100 nm	26 959	544	98.28	0.61	0.64	6
100 - 120 nm	17 967	1 092	94.00	2.22	2.33	6
120 - 150 nm	19 698	1 436	92.51	1.96	2.05	6
150 - 200 nm	28 524	1 832	93.47	1.77	1.85	6
200 - 250 nm	26 792	1 707	93.34	0.90	0.94	6
250 - 300 nm	21 968	1 275	93.79	0.80	0.84	6
300 - 400 nm	38 179	2 268	93.73	0.61	0.64	6
400 - 550 nm	32 119	1 770	94.19	0.32	0.33	6
550 - 700 nm	15 924	762	95.13	0.51	0.54	6
700 - 1000 nm	21 497	764	96.37	0.39	0.41	6
1000 - 1300 nm	5 965	193	96.60	0.68	0.72	6
1300 - 1600 nm	5 267	142	97.24	0.91	0.95	6
1600 - 2200 nm	20 524	408	97.99	0.35	0.37	6
2200 - 3000 nm	7 333	76	99.04	0.30	0.32	6
3000 - 4000 nm	2 333	4	99.84	0.24	0.26	6
4000 - 5500 nm	1 210	0	100.00	0.00	0.00	6
5500 - 7000 nm	120	0	100.00	0.00	0.00	6
7000 -10000 nm	11	0	100.00	0.00	0.00	5

