

Politecnico di Torino - Dipartimento Energia

Efficiency Assessment

Test No.:	5015	Petitioner:	Aerosol Technology Lab
Date:	12/03/2024	Medium:	n ° 10 - PANCO0.4CNF 2
Measurement no.:	1	Manufacturer:	USP-Sao Carlos
Area [m²]:	0.001	Medium type:	polyacrylonitrile+castor oil+cellulose nanofiber
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]:	335
Sampling cycle time [s]:	45	Air flow rate entering OPC [cm³/min]:	95
Dilution factor:	1	Correlation ratio:	982-03/12/2024 12:55:47 PM-Mas
Neutralizer:		OPC:	TSI 3340
Conditioned / Discharged	No	Test environment:	23.1 °C /24% /98100Pa
Remarks:	OPS3340A 0.452m3/h 7.5sl/min Adattore D40mm sovrapressione=11Pa		

Size class [nm]	Particle concentration [#/dm³]		Efficiency [%]	Deviation [+/-]	Uncertainty [+/-]	Meaningful cycles
	Upstream	Downstream				
90 - 100 nm	42 125	2 629	94.71	7.28	7.63	6
100 - 120 nm	31 485	3 067	91.42	5.67	5.95	6
120 - 150 nm	32 818	2 994	90.76	0.81	0.85	6
150 - 200 nm	48 293	4 447	90.35	0.68	0.72	6
200 - 250 nm	45 279	3 991	91.04	0.44	0.46	6
250 - 300 nm	37 053	3 221	91.19	0.45	0.47	6
300 - 400 nm	65 774	5 240	91.84	0.41	0.43	6
400 - 550 nm	55 832	4 152	92.40	0.58	0.61	6
550 - 700 nm	27 010	1 857	92.78	0.78	0.82	6
700 - 1000 nm	37 650	1 984	94.53	0.61	0.64	6
1000 - 1300 nm	10 065	388	96.10	0.53	0.55	6
1300 - 1600 nm	8 654	323	96.13	0.84	0.88	6
1600 - 2200 nm	33 953	950	96.97	0.40	0.42	6
2200 - 3000 nm	10 775	133	98.63	0.36	0.38	6
3000 - 4000 nm	3 148	16	99.43	0.64	0.68	6
4000 - 5500 nm	1 534	0	100.00	0.00	0.00	6
5500 - 7000 nm	104	0	100.00	0.00	0.00	6
7000 -10000 nm	10	0	100.00	0.00	0.00	4

