

# Politecnico di Torino - Dipartimento Energia

## Efficiency Assessment

Test No.: 5015      Petitioner: Aerosol Technology Lab  
Date: 19/03/2024      Medium: n ° 5 - PAN0.4CNF 3  
Measurement no.: 6      Manufacturer: USP-Sao Carlos  
Area [m²]: 0.001      Medium type: Polyacrylonitrile+cellulose nanofibrils  
Filter class:      Lot:  
Aerosol: DEHS      Air flow rate through filter: 0.000125556[m³/s] (0.452[m³/h])  
Sampling cycles: 6      Filter air flow resistance [Pa]: 636  
Sampling cycle time [s]: 45      Air flow rate entering OPC [cm³/min]: 1000  
Dilution factor: 1      Correlation ratio: 986-03/19/2024 4:22:53 PM-Mas  
Neutralizer:      OPC: OPS 3330 ip121  
Conditioned / DischargedNo      Test environment: 24.4 °C /35% /98400Pa  
Remarks: TSI OPS3330 0.452m3/h 7.5l/min  
Adattore Diameter 40mm 10cm/s. Delta P= 636Pa  
Pressione all'interno del condotto= 78 Pa

Size class [µm]	Particle concentration [#/dm³]		Efficiency [%]	Deviation [+/-]	Uncertainty [+/-]	Meaningful cycles
	Upstream	Downstream				
0.30 - 0.40 µm	36 306	1 693	95.26	0.26	0.27	6
0.40 - 0.55 µm	25 591	1 019	95.92	0.31	0.32	6
0.55 - 0.70 µm	15 505	560	96.30	0.12	0.12	6
0.70 - 1.00 µm	21 482	545	97.40	0.08	0.08	6
1.00 - 1.30 µm	7 195	105	98.46	0.20	0.21	6
1.30 - 1.60 µm	11 170	115	98.93	0.07	0.08	6
1.60 - 2.20 µm	11 368	56	99.48	0.07	0.07	6
2.20 - 3.00 µm	3 348	5	99.84	0.11	0.11	6
3.00 - 4.00 µm	1 121	0	99.96	0.07	0.07	6
4.00 - 5.50 µm	221	0	100.00	0.00	0.00	6
5.50 - 7.00 µm	17	0	100.00	0.00	0.00	6
7.00 - 10.00 µm	6	0	100.00	0.00	0.00	6

