

Politecnico di Torino - Dipartimento Energia

Efficiency Assessment

Test No.: 5015 *Petitioner:* Aerosol Technology Lab
Date: 16/11/2023 *Medium:* n ° 3 - 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:* 0.000125556[m³/s] (0.452[m³/h])
Sampling cycles: 6 *Filter air flow resistance [Pa]:* 450
Sampling cycle time [s]: 45 *Air flow rate entering OPC [cm³/min]:* 1000
Dilution factor: 1 *Correlation ratio:* 972-11/16/2023-Mascherine-ops3
Neutralizer: *OPC:* OPS 3330 ip121
Conditioned / Discharged: No *Test environment:* 24.8 °C /25% /98400Pa
Remarks: TSI OPS3330 0.452m³/h 7.5l/min
 Adattore Diameter 40mm 10cm/s. Delta P=450 Pa
 Pressione all'interno del condotto=20 Pa

Size class [µm]	Particle concentration [#/dm³]		Efficiency [%]	Deviation [+/-]	Uncertainty [+/-]	Meaningful cycles
	Upstream	Downstream				
0.30 - 0.40 µm	24 520	1 538	93.19	0.26	0.27	6
0.40 - 0.55 µm	17 613	1 033	93.62	0.33	0.35	6
0.55 - 0.70 µm	12 763	682	94.18	0.40	0.42	6
0.70 - 1.00 µm	17 279	785	95.01	0.24	0.25	6
1.00 - 1.30 µm	5 642	190	96.20	0.18	0.18	6
1.30 - 1.60 µm	9 647	249	97.10	0.20	0.21	6
1.60 - 2.20 µm	10 501	194	97.84	0.17	0.18	6
2.20 - 3.00 µm	3 601	40	98.67	0.24	0.25	6
3.00 - 4.00 µm	1 565	13	98.94	0.36	0.38	6
4.00 - 5.50 µm	392	2	99.24	0.27	0.28	6
5.50 - 7.00 µm	36	0	100.00	0.00	0.00	6
7.00 - 10.00 µm	7	0	100.00	0.00	0.00	6

