

Politecnico di Torino - Dipartimento Energia

Efficiency Assessment

Test No.: 5015 **Petitioner:** Aerosol Technology Lab
Date: 17/11/2023 **Medium:** n ° 5 - PAN0.4CNF 3
Measurement no.: 3 **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]:** 350
Sampling cycle time [s]: 45 **Air flow rate entering OPC [cm³/min]:** 1000
Dilution factor: 1 **Correlation ratio:** 973-11/17/2023-Mascherine-ops3
Neutralizer: **OPC:** OPS 3330 ip121
Conditioned / Discharged: No **Test environment:** 22 °C /24% /98300Pa
Remarks: TSI OPS3330 0.452m³/h 7.5l/min
 Adattore Diameter 40mm 10cm/s. Delta P=350 Pa
 Pressione all'interno del condotto= 10 Pa

Size class [µm]	Particle concentration [#/dm³]		Efficiency [%]	Deviation [+/-]	Uncertainty [+/-]	Meaningful cycles
	Upstream	Downstream				
0.30 - 0.40 µm	31 964	6 358	78.92	0.63	0.67	6
0.40 - 0.55 µm	23 082	4 255	80.46	0.49	0.52	6
0.55 - 0.70 µm	16 871	2 938	81.73	0.64	0.67	6
0.70 - 1.00 µm	22 656	3 652	82.93	0.49	0.51	6
1.00 - 1.30 µm	7 253	1 097	83.82	0.49	0.51	6
1.30 - 1.60 µm	12 378	1 698	85.48	0.44	0.46	6
1.60 - 2.20 µm	13 384	1 516	87.88	0.61	0.64	6
2.20 - 3.00 µm	4 545	383	90.98	0.60	0.63	6
3.00 - 4.00 µm	1 929	113	93.72	0.81	0.85	6
4.00 - 5.50 µm	472	20	95.24	1.80	1.89	6
5.50 - 7.00 µm	38	0	99.18	2.00	2.10	6
7.00 - 10.00 µm	9	0	100.00	0.00	0.00	6

