

Politecnico di Torino - Dipartimento Energia

Efficiency Assessment

| | | | |
|--------------------------|---------------------------------------------------------------------------------|---------------------------------------|----------------------------------|
| Test No.: | 5020 | Petitioner: | Politecnico-Dipartimento Energia |
| Date: | 17/06/2024 | Medium: | n ° 3 - |
| Measurement no.: | 1 | Manufacturer: | Technostat |
| Area [m²]: | 0.02 | Medium type: | |
| Filter class: | | Lot: | FA6900NW |
| Aerosol: | KCI | Air flow rate through filter: | 0.002[m³/s] (7.2[m³/h]) |
| Sampling cycles: | 6 | Filter air flow resistance [Pa]: | 182 |
| Sampling cycle time [s]: | 45 | Air flow rate entering OPC [cm³/min]: | 1000 |
| Dilution factor: | 1 | Correlation ratio: | 990-06/17/2024 5:56:01 PM-Mate |
| Neutralizer: | Topas EAN 581 | OPC: | OPS 3330 ip121 |
| Conditioned / Discharged | No | Test environment: | 23 °C /43% /98300Pa |
| Remarks: | OPC 3330 KCI 20% 121 SLPM, piastra d=160mm, sovrappressione = 50 Pa +2.4kV -2kV | | |

| Size class [μm] | Particle concentration [#/dm³] | | Efficiency [%] | Deviation [+/-] | Uncertainty [+/-] | Meaningful cycles |
|--------------------|-----------------------------------|------------|-------------------|--------------------|----------------------|----------------------|
| | Upstream | Downstream | | | | |
| 0.30 - 0.40 μm | 1 172 861 | 730 795 | 38.87 | 0.60 | 0.63 | 6 |
| 0.40 - 0.55 μm | 368 501 | 154 648 | 60.04 | 0.50 | 0.52 | 6 |
| 0.55 - 0.70 μm | 87 633 | 26 972 | 71.26 | 0.60 | 0.63 | 6 |
| 0.70 - 1.00 μm | 62 047 | 14 313 | 78.46 | 0.52 | 0.54 | 6 |
| 1.00 - 1.30 μm | 2 666 | 321 | 89.05 | 0.51 | 0.54 | 6 |
| 1.30 - 1.60 μm | 770 | 68 | 91.60 | 0.48 | 0.50 | 6 |
| 1.60 - 2.20 μm | 208 | 8 | 96.23 | 1.73 | 1.81 | 6 |
| 2.20 - 3.00 μm | 30 | 0 | 98.97 | 2.52 | 2.65 | 6 |
| 3.00 - 4.00 μm | 12 | 0 | 100.00 | 0.00 | 0.00 | 6 |
| 4.00 - 5.50 μm | 5 | 0 | 100.00 | 0.00 | 0.00 | 6 |
| 5.50 - 7.00 μm | 1 | 0 | 100.00 | 0.00 | 0.00 | 5 |
| 7.00 - 10.00 μm | 1 | 0 | 100.00 | 0.00 | 0.00 | 3 |
| > 10.00 μm | 1 | 0 | 100.00 | 0.00 | 0.00 | 4 |
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