

## सी.एस.आई.आर.–राष्ट्रीय भौतिक प्रयोगशाला CSIR - NATIONAL PHYSICAL LABORATORY (वैज्ञानिक तथा औद्योगिक अनुसंघान परिषद) (Council of Scientific & Industrial Research)

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Ref: NPL/TSP-230832/CER

Dated: 01.09.2025

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that we have completed a project (Code: TSP-230832), titled: "Testing of a High-Flow Air Purifier", project duration: September 25, 2023 to March 19, 2025 from M/s Siddhivinayak Tradelinks, 5B/8, Good Earth CHS Ltd., Sindhi Society, Chembur, Mumbai Suburban, Maharashtra-400071 successfully, and submitted the project report recently. Under this project, the performance of a high-flow air purification system (filter less technology) named as 'AUFERO' has been assessed by measuring the Clean Air Delivery Rate, calculating efficiency of PM<sub>2.5</sub> and PM<sub>10</sub> removal, finding out the formation of ozone and nitrogen dioxide, performance consistency of the system in a long-duration run, biological particle removal, and energy consumption by the system. The details of the experimental setup, observations, and findings are recorded in the "Testing of a High-Flow Air Purifier" report by CSIR-NPL.

In summary, the system demonstrated a high Clean Air Delivery Rate (CADR) up to 2,200 m³/h (approx.) for PM $_{10}$ . The Single-Pass Efficiency (SPE) tests showed consistent removal rates of ~25% for PM $_{2.5}$  and ~34% for PM $_{10}$  across different real-world dust samples. Continuous monitoring over 72 hours confirmed that the air purification system does not generate any significant ozone or nitrogen dioxide, with concentrations remaining well within National Ambient Air Quality Standards (NAAQS). A seven-day continuous operation test confirmed stable performance of the air purification system. Alao, the system demonstrated ~25% Bacterial Filtration Efficiency (BFE). The electricity consumption was also estimated to be ~0.342 kWh, i.e. the system offers a high CADR-to-power ratio.

Sincerely,

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