



Test Lab: 93 Industrial Drive Louisa, VA 23093

Report No. 22-006

Date: 1/7/2022

# ASHRAE STANDARD 52.2-2017 TEST REPORT

This report applies to the tested device only



### Filter Description

|                                   |   |
|-----------------------------------|---|
| Filter/Media Manufacturer         | <b>Tridim</b>                                       |
| Filter /Media Product Name        | <b>Prototype HEPA</b>                               |
| Part Number                       | <b>N/A</b>  |
| Generic Filter Type               | <b>HEPA</b>   |
| Filter Date Code                  | <b>N/A</b>  |
| Nominal Dimensions (in) W x H x D | <b>24 x 24 x 2</b> (in.) <b>610 x 610 x 51</b> (mm) |
| Pocket / Pleat Quantity           | <b>118</b>  |
| Media Type                        | <b>Unknown</b>                                      |
| Weight                            | (g.)                      (oz.)                     |
| Media Grade/Combination           | <b>Unknown</b>                                      |

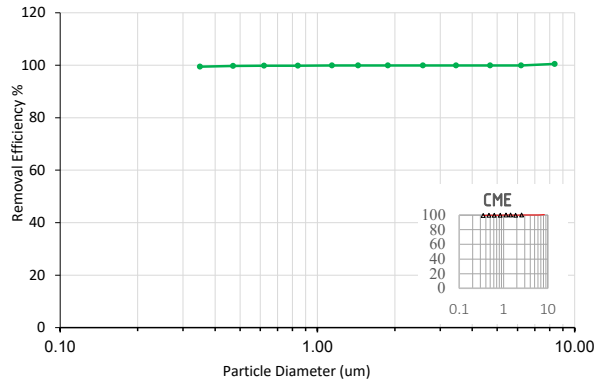
### Test Conditions

|                       |                     |                                 |                     |                     |                     |
|-----------------------|---------------------|---------------------------------|---------------------|---------------------|---------------------|
| Airflow Rate          | <b>1968</b> (CFM)   | <b>3344</b> (m <sup>3</sup> /h) | Barometric Pressure | <b>29.6</b> (in.Hg) | <b>100.3</b> (KPa.) |
| Nominal Face Velocity | <b>492</b> (ft/min) | <b>2.5</b> (m/s)                | Test Air Temp       | <b>78.5</b> (°F.)   | <b>25.8</b> (°C.)   |
|                       |                     |                                 | Relative Humidity   | <b>18.3</b> (%)     |                     |

### Efficiency Results

| Geometric Mean Diam. (µm) | Particle Removal Efficiency (%) | Avg. Efficiency Size Range | Avg. Minimum PSE |
|---------------------------|---------------------------------|----------------------------|------------------|
| 0.35                      | <b>99.6</b>                     | E1 Range                   | PM1 52.2         |
| 0.47                      | <b>99.9</b>                     | (0.30 - 1.0 µm)            | (0.30 - 1.0 µm)  |
| 0.62                      | <b>100.0</b>                    | <b>99.8</b>                | <b>99.8</b>      |
| 0.84                      | <b>100.0</b>                    |                            |                  |
| 1.14                      | <b>100.0</b>                    | E2 Range                   | PM2.5 52.2       |
| 1.44                      | <b>100.0</b>                    | (1.0 - 3.0 µm)             | (0.30 - 3.0 µm)  |
| 1.88                      | <b>100.0</b>                    | <b>100.0</b>               | <b>99.9</b>      |
| 2.57                      | <b>100.0</b>                    |                            |                  |
| 3.46                      | <b>100.0</b>                    | E3 Range                   | PM10 52.2        |
| 4.69                      | <b>100.0</b>                    | (3.0 - 10 µm)              | (0.30 - 10 µm)   |
| 6.20                      | <b>100.0</b>                    | <b>100.2</b>               | <b>100.0</b>     |
| 8.37                      | <b>100.6</b>                    |                            |                  |

Initial Particle Size Removal Efficiency

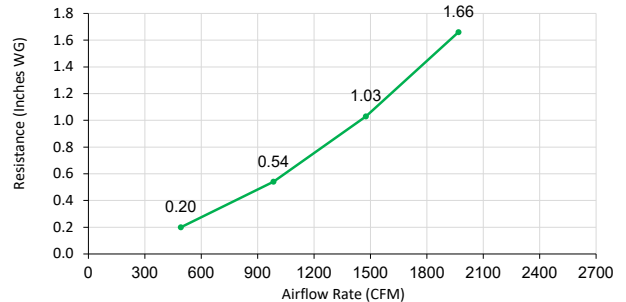


Initial Efficiency Rated Value\* **16**

### Resistance Traverse Results

| Air Flow (CFM) | Resistance Δ/p |              |
|----------------|----------------|--------------|
|                | (" w.c.)       | (Pa.)        |
| 492            | <b>0.20</b>    | <b>49.8</b>  |
| 984            | <b>0.54</b>    | <b>134.4</b> |
| 1476           | <b>1.03</b>    | <b>256.3</b> |
| 1968           | <b>1.66</b>    | <b>413.1</b> |
| 2460           |                |              |

Resistance vs Airflow



Observations:

\*Estimated rating based on Initial Efficiency data only

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