

# DIN EN ISO 10121-3:2023-10 (E)

## Test methods for assessing the performance of gas-phase air cleaning media and devices for general ventilation - Part 3: Classification system for GPACDs applied to treatment of outdoor air (ISO 10121-3:2022)

---

| <b>Contents</b> |   | <b>Page</b> |
|-----------------|---|-------------|
|                 | European foreword .....   | 3           |
|                 | Foreword.....   | 4           |
|                 | Introduction.....   | 5           |
| <b>1</b>        | <b>Scope</b> .....  | <b>6</b>    |
| <b>2</b>        | <b>Normative references</b> .....   | <b>6</b>    |
| <b>3</b>        | <b>Terms and definitions</b> .....  | <b>6</b>    |
| <b>4</b>        | <b>Symbols and abbreviated terms</b> .....  | <b>11</b>   |
| <b>5</b>        | <b>Classification system for outdoor air</b> .....  | <b>11</b>   |
|                 | 5.1 General.....  | 11          |
|                 | 5.2 Test setup and test parameters.....   | 12          |
|                 | 5.3 Initial removal efficiency.....   | 13          |
|                 | 5.4 Dose concept.....   | 13          |
|                 | 5.5 Classes, duty levels and dose.....  | 13          |
|                 | 5.6 Pollutants and concentrations.....  | 14          |
|                 | 5.7 Integrated removal efficiency.....  | 14          |
|                 | 5.8 Classification example graph.....   | 15          |
|                 | 5.9 Desorption and retentivity.....   | 16          |
| <b>6</b>        | <b>Classification test sequence</b> .....   | <b>16</b>   |
|                 | 6.1 General.....  | 16          |
|                 | 6.2 Conditioning.....   | 16          |
|                 | 6.3 Initial removal efficiency.....   | 17          |
|                 | 6.4 Capacity determination expressed as $E_c$ (%) versus $D_N$ (g/m <sup>2</sup> ).....                 | 17          |
|                 | 6.4.1 Zero to LD.....   | 17          |
|                 | 6.4.2 Check $E_c$ at LD.....  | 17          |
|                 | 6.4.3 LD to MD.....   | 17          |
|                 | 6.4.4 MD to HD and HD.....  | 17          |
|                 | 6.5 Retentivity.....  | 18          |
|                 | 6.6 Premature stop.....   | 18          |
| <b>7</b>        | <b>Classification system</b> .....  | <b>18</b>   |
|                 | 7.1 General.....  | 18          |
|                 | 7.2 LD, MD and HD dose values.....  | 18          |
|                 | 7.3 Classification example.....   | 19          |
| <b>8</b>        | <b>Report</b> .....   | <b>20</b>   |
|                 | 8.1 General.....  | 20          |
|                 | 8.2 Test report layout.....   | 20          |
|                 | <b>Annex A (informative) Information about environment pollutant concentration in outdoor air</b> ..... | <b>27</b>   |
|                 | <b>Bibliography</b> .....   | <b>29</b>   |