

# DIN EN 16846-1:2017-05 (E)

## Photocatalysis - Measurement of efficiency of photocatalytic devices used for the elimination of VOC and odour in indoor air in active mode - Part 1: Batch mode test method in closed chamber

---

<b>Contents</b>	<b>Page</b>
European foreword .....	3
1 Scope .....	4
2 Normative references .....	4
3 Terms and definitions .....	4
4 Symbols and abbreviations .....	5
5 Principle .....	5
6 Apparatus .....	6
7 Test performance .....	6
7.1 Pollutants and concentrations .....	6
7.1.1 General .....	6
7.1.2 Indoor air .....	6
7.1.3 Industrial issue and challenge .....	7
7.2 Validation of the chamber .....	7
7.3 Test conditions .....	7
7.4 Test procedure .....	7
7.5 Mineralization test with continuous monitoring of CO <sub>2</sub> levels .....	7
7.6 Analysis of reaction by-products and ozone .....	8
7.7 Olfactive efficiency of the system .....	8
8 Test report .....	9
Annex A (informative) Schematic diagram of an air tight chamber .....	10
Annex B (informative) Types of sorbent apparatus for thermal desorption cartridges .....	11
Annex C (informative) Examples of a chamber blanks analysis .....	12
Annex D (informative) Analysis of the reaction mixture .....	13
Annex E (informative) Example of a plot of temperature and relative humidity, as well as developments in pollutants and CO <sub>2</sub> .....	14
Annex F (informative) Example of test at low concentration with formaldehyde .....	16
Annex G (informative) CADR calculation .....	17
Annex H (informative) Calculation of CADR .....	19