

ISO 22197-2:2019-10 (E)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Test method for air-purification performance of semiconducting photocatalytic materials - Part 2: Removal of acetaldehyde

| Contents | | Page |
|-----------------------|--|-------------|
| Foreword | | iv |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Symbols | 2 |
| 5 | Principle | 3 |
| 6 | Apparatus | 3 |
| 6.1 | Test equipment | 3 |
| 6.2 | Test gas supply | 4 |
| 6.3 | Photoreactor | 5 |
| 6.4 | Light source | 6 |
| 6.5 | Analytical system for acetaldehyde | 6 |
| 6.6 | Analytical system for CO ₂ | 7 |
| 7 | Test piece | 7 |
| 8 | Procedure | 7 |
| 8.1 | General aspects | 7 |
| 8.2 | Pretreatment of test piece | 8 |
| 8.3 | Preparation for the test | 8 |
| 8.4 | Pretest | 9 |
| 8.5 | Test of acetaldehyde removal and CO ₂ conversion | 9 |
| 8.6 | Test of acetaldehyde removal (when the CO ₂ concentration cannot be measured) | 10 |
| 9 | Calculation | 11 |
| 9.1 | Calculation method | 11 |
| 9.2 | Removal percentage and removed quantity of acetaldehyde | 11 |
| 9.3 | Conversion to CO ₂ | 11 |
| 10 | Test method for test pieces with lower performance | 12 |
| 11 | Test report | 13 |
| Annex A (informative) | Results of round-robin test | 14 |
| Bibliography | | 16 |