

ISO 22601:2019 (E)

Fine ceramics (advanced ceramics, advanced technical ceramics) — Test method for determination of phenol oxidative decomposition performance of semiconducting photocatalytic materials by quantitative analysis of total organic carbon (TOC)

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Symbols
5	Principle
6	Materials
6.1	Chemicals and implements
6.1.1	Reagent
6.1.2	Purified water
6.1.3	Purified air
6.1.4	Purified water saturated with dissolved oxygen
7	Test device and instrument
7.1	Test vessel
7.2	Reserve container
7.3	UV irradiation light source
7.4	UV radiometer
7.5	UV light intensity
7.6	pH meter
7.7	TOC measuring device
8	Arrangement of test method
8.1	Measuring device setup
8.2	Test solution feeding device
8.3	Instruments for air flow
9	Test material
9.1	Test piece
9.2	Pre-treatment of the test piece
10	Procedure of the measurement
10.1	Test temperature
10.2	Other test condition
10.3	Preparation for test
10.4	Procedure of the measurement
11	Evaluation of results
11.1	Evaluation of dark condition
11.2	Evaluation of illuminated condition
11.3	Phenol oxidative decomposition performance
11.4	Condition for establishing a successful test

12 Test report

Annex A (informative) Example of suitable test vessel

A.1 Schematic diagram of test vessel

Annex B (informative) Example of suitable test vessel

B.1 Schematic diagram of reserve container and water jacket

Annex C (informative) Example of test position of test vessel and suitable measuring device component

C.1 Schematic diagram of framework for test device

Annex D (informative) Example of data evaluation

Annex E (informative) Results of the interlaboratory test

Page count: 15