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Fine ceramics (advanced ceramics, advanced technical ceramics) — Test method for self-cleaning performance of semiconducting photocatalytic materials under indoor lighting environment — Measurement of water contact angle

Céramiques techniques — Méthode d'essai relative aux propriétés autonettoyantes des matériaux photocatalytiques semiconducteurs dans un environnement d'éclairage intérieur — Mesurage de l'angle de contact de l'eau

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Contents

Page

Foreword ..... **iv**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Principle **3**

5 Test apparatus **3**
5.1 Instruments and apparatus 3
5.2 Reagents 4
5.3 Laboratory temperature and humidity 4

6 Test piece preparation **4**

7 Test procedures **5**
7.1 Measurement of water contact angle 5
7.2 Test piece pretreatment 5
7.3 Visible light irradiation and measurement of contact angle after n h of visible light irradiation, $\theta_4(n)$ 6
7.3.1 Measurement of illuminance and preparation of test piece placement location 6
7.3.2 Measurement of contact angle after n h of visible light irradiation, $\theta_4(n)$ 6

8 Calculation of test results **8**
8.1 Guide to the rounding of numbers 8
8.2 Calculation of contact angle 8
8.3 Conditions for a valid test 9
8.4 Initial contact angle halving time, $n_{1/2}$ 9
8.5 Contact angle reduction time, $n_{10°}$ 10

9 Reporting of test results **10**

10 Test measurement examples **11**

Bibliography **12**

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Foreword

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This document was prepared by Technical Committee ISO/TC 206, *Fine ceramics*.

This second edition cancels and replaces the first edition (ISO 19810:2017), of which it constitutes a minor revision. The changes are as follows:

— definitions of 3.1, 3.2 and 3.4 corrected;

— minor editorial changes.

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Fine ceramics (advanced ceramics, advanced technical ceramics) — Test method for self-cleaning performance of semiconducting photocatalytic materials under indoor lighting environment — Measurement of water contact angle

1 Scope

This document specifies a test method for the determination of the self-cleaning performance of sheet-form materials that contain an indoor-light-active photocatalyst or have indoor-light-active photocatalytic films on the surface, under indoor lighting environment.

This method is used to measure the change of water contact angle under indoor lighting environment, which is one of the indices reflecting the self-cleaning performance of semiconducting photocatalytic materials.

This document is not applicable to permeable materials on which water droplets cannot hold and rough materials which obscure water droplets. This document is not applicable to materials of which the changes in the water contact angle due to decomposition of adhered organic matter cannot be evaluated because even if the surface is clean, the water contact angle is remarkably large or the water contact angle cannot be sufficiently increased by attaching organic matter to the surface.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 10677, *Fine ceramics (advanced ceramics, advanced technical ceramics) — Ultraviolet light source for testing semiconducting photocatalytic materials*

ISO 14605, *Fine ceramics (advanced ceramics, advanced technical ceramics) — Light source for testing semiconducting photocatalytic materials used under indoor lighting environment*

ISO 27448, *Fine ceramics (advanced ceramics, advanced technical ceramics) — Test method for self-cleaning performance of semiconducting photocatalytic materials — Measurement of water contact angle*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 27448 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

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