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(JFCA/JSA)

**Fine ceramics (advanced ceramics,
advanced technical ceramics) — Test
method for self-cleaning performance of
photocatalytic materials — Part 1:
Measurement of water contact angle**

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In the event of any doubts arising as to the contents,
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Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Fine Ceramics Association (JFCA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied *mutatis mutandis* pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS R 1703-1** : 2007), which has been technically revised.

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JIR R 1703 series consists of the following 2 parts under the general title *Fine ceramics (advanced ceramics, advanced technical ceramics) — Test method for self-cleaning performance of photocatalytic materials* :

Part 1 : Measurement of water contact angle

Part 2 : Decomposition of wet methylene blue

Fine ceramics (advanced ceramics, advanced technical ceramics) — Test method for self-cleaning performance of photocatalytic materials — Part 1 : Measurement of water contact angle

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 27448** : 2009, Edition 1, with some modifications of the technical contents.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies the measurement method using water contact angle among the test methods for self-cleaning performance of photocatalytic materials, in which metal oxide semiconductors such as titanium dioxide are mainly used as photocatalysts.

This Standard does not apply to the permeable photocatalytic materials which absorb water and cannot retain water droplets, photocatalytic materials with uneven surfaces which hide waterdrops, photocatalytic materials with high water repellency, powdered and granular photocatalytic materials, and photocatalytic materials of visible light response type.

NOTE The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 27448 : 2009 *Fine ceramics (advanced ceramics, advanced technical ceramics) — Test method for self-cleaning performance of semi-conducting photocatalytic materials — Measurement of water contact angle* (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS K 0557 *Water used for industrial water and wastewater analysis*

JIS K 7100 *Plastics — Standard atmospheres for conditioning and testing*