JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS R 1703-2 : 2014

(JFCA/JSA)

Fine ceramics (advanced ceramics, advanced technical ceramics) — Test method for self-cleaning performance of photocatalytic materials — Part 2: Decomposition of wet methylene blue

ICS 81.060.30

Reference number : JIS R 1703-2 : 2014 (E)

Date of Establishment: 2007-07-20

Date of Revision: 2014-02-20

Date of Public Notice in Official Gazette: 2014-02-20

Investigated by: Japanese Industrial Standards Committee

Standards Board

Technical Committee on Ceramics

JIS R 1703-2 : 2014, First English edition published in 2016-01

Translated and published by: Japanese Standards Association
Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

Printed in Japan KK/HN

Contents

Foreword

This translation has been made based on the original Japanese Industrial Standard 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 the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently **JIS R 1703-2**:2007 is replaced with this Standard.

It should be noted that being in conformance with this Standard may come under the use of the following patent rights and the application for a patent after opening to the public:

— Title of invention Method for evaluating photocatalytic activity and film for evaluating photocatalytic activity

— Date of registration of establishment July 11, 2003

— Title of invention Method and apparatus for measuring photocatalyst activity

— Date of registration of establishment November 02, 2001

The relevant holders of the above-mentioned patent rights have indicated an intention of granting license to anyone under the nondiscriminatory and reasonable conditions, except to the other relevant holders of the patent rights related to this Standard who will not grant their licenses under the same conditions. It should be noted that following this Standard does not always refer to granting a free license.

There is the possibility that some parts of this Standard may conflict with patent rights other than mentioned above. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights.

The "patent rights" as mentioned here include patent right, application for a patent after opening to the public or utility model right.

JIS 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 2 : Decomposition of wet methylene blue

Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 10678** published in 2010 with some modifications of the technical contents by adding some **JIS** specifications.

The portions given sidelines or dotted underlines are the matters in which the contents of the corresponding International Standard have been modified. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies the measurement of the decomposition performance in an aqueous medium among indices which affect the self-cleaning performance of flat-plate shaped photocatalytic materials.

However, this Standard is not applicable to the photocatalytic materials with permeability such that water can seep but cannot remain.

In this Standard, the photocatalyst that is effective in the ultraviolet light region of 300 nm to 380 nm in wavelength mainly under the sunlight irradiation is covered.

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

ISO 10678 : 2010 *Fine ceramics (advanced ceramics, advanced technical ceramics) — Determination of photocatalytic activity of surfaces in an aqueous medium by degradation of methylene blue* (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 0970 *Piston pipettes*

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