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Fine ceramics (advanced ceramics, advanced technical ceramics)—Test method for air purification performance of photocatalytic materials—Part 3: Removal of toluene

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In the event of any doubts arising as to the contents,
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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)/ National Institute of Advanced Industrial Science and Technology (AIST)/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 1701-3** : 2008 is replaced with this Standard.

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JIS R 1701 series consists of the following five parts under the general title "*Fine ceramics (advanced ceramics, advanced technical ceramics)—Test method for air purification performance of photocatalytic materials*":

Part 1: Removal of nitric oxide

Part 2: Removal of acetaldehyde

Part 3: Removal of toluene

Part 4: Removal of formaldehyde

Part 5: Removal of methyl mercaptan

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Fine ceramics (advanced ceramics, advanced technical ceramics)— Test method for air purification performance of photocatalytic materials— Part 3: Removal of toluene

Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 22197-3** published in 2011, by modifying some of the technical contents to ensure consistency among **JIS R 1701-1** to **JIS R 1701-5** and **JIS R 1751-1** to **JIS R 1751-5** which have been established after the publication of **ISO 22197-3**.

Sidelines and dotted underlines represent the parts modified from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies the method to test the removal performance of toluene (C_7H_8) gas, among air purification performances, of the photocatalytic materials supported on the surface of building materials and other materials.

This Standard is mainly intended for photocatalysts which are effective in ultraviolet (UV) region within a wavelength range of 300 nm to 380 nm, under solar radiation. To the testing of toluene removal performance under visible light, the method given in **JIS R 1751-3** shall be applied instead of the method specified in this Standard.

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

ISO 22197-3 : 2011 *Fine ceramics (advanced ceramics, advanced technical ceramics)—Test method for air-purification performance of semiconducting photocatalytic materials—Part 3: Removal of toluene* (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 0055 *General rules for calibration method of gas analyzer*

JIS K 0114 *General rules for gas chromatography*

JIS R 1600 *Glossary of terms relating to fine ceramics*

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