BS ISO 18061:2014

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Fine Ceramics (Advanced Ceramics, Advanced Technical Ceramics) — Determination of antiviral activity of semiconducting photocatalytic materials — Test method using bacteriophage Q-beta

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National foreword

This British Standard is the UK implementation of ISO 18061:2014.

The UK participation in its preparation was entrusted to Technical Committee RPI/13, Advanced technical ceramics.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Fine Ceramics (Advanced Ceramics, Advanced Technical Ceramics) — Determination of antiviral activity of semiconducting photocatalytic materials — Test method using bacteriophage Q-beta

Céramiques techniques — Détermination de l'activité antivirale des matériaux photocatalytiques semi-conducteurs — Méthode d'essai utilisant le bactériophage Q-beta

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 206, *Fine ceramics*.

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Introduction

This International Standard applies to testing the antiviral activity of photocatalytic ceramics and other materials produced by either coating or mixing of a photocatalyst. The International Standard for testing the antibacterial activity that use photocatalytic materials has been published as ISO 27447. The International Standard for testing the antifungal activity that use photocatalytic materials has also been published as ISO 13125.

The test method for cloths or textiles is not included in this International Standard because of lack of photocatalytic cloths or textiles with antiviral activity using photocatalytic activity. When photocatalytic cloths or textiles with antiviral activity using photocatalytic activity have been developed, a test method for photocatalytic cloths or textiles will be proposed with the glass adhesion method in ISO 27447.

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INTERNATIONAL STANDARD ISO 18061:2014(E)

Fine Ceramics (Advanced Ceramics, Advanced Technical Ceramics) — Determination of antiviral activity of semiconducting photocatalytic materials — Test method using bacteriophage Q-beta

WARNING — Only personnel trained in microbiological techniques should carry out tests.

1 Scope

The test method in this International Standard specifies the determination of the antiviral activity of materials that contain photocatalytic materials or have photocatalytic films on the surface, by enumerating the destruction of bacteriophage Q-beta after irradiation of ultraviolet light.

NOTE In this test method, the surrogate microbe is bacteriophage Q-beta, intended as a model for Influenza viruses.

The test method in this International Standard is intended for use with different kinds of semiconducting photocatalytic materials used in construction materials, in flat sheet, board, or plate shape that are the basic forms of materials for various applications. It does not include powder, granular, or porous photocatalytic materials.

The test method in this International Standard is applicable to photocatalytic materials produced for an antiviral application. Other types of performance of photocatalytic materials, i.e. antibacterial activity, antifungal activity, decomposition of water contaminants, self-cleaning, antifogging, and air purification, are not determined by this test method.

The values expressed in this International Standard are in accordance with the International System of Units (SI).

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 27447, *Fine ceramics (advanced ceramics, advanced technical ceramics) — Test method for antibacterial activity of semiconducting photocatalytic materials*

ISO 80000-1, *Quantities and units — Part 1: General*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
photocatalyst
substance that carries out many functions based on oxidization and reduction reactions under photoirradiation, including decomposition and removal of air and water contaminants, deodorization, and antiviral, antibacterial, antifungal, self-cleaning, and antifogging actions

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