Irish Standard
I.S. EN ISO 26443:2016

Fine ceramics (advanced ceramics, advanced technical ceramics) - Rockwell indentation test for evaluation of adhesion of ceramic coatings (ISO 26443:2008)

I.S. EN ISO 26443:2016

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN ISO 26443:2016 is the adopted Irish version of the European Document EN ISO 26443:2016, Fine ceramics (advanced ceramics, advanced technical ceramics) - Rockwell indentation test for evaluation of adhesion of ceramic coatings (ISO 26443:2008)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 26443

April 2016

ICS 81.060.30

Supersedes CEN/TS 1071-8:2004

English Version

Fine ceramics (advanced ceramics, advanced technical ceramics) - Rockwell indentation test for evaluation of adhesion of ceramic coatings (ISO 26443:2008)

Céramiques techniques - Évaluation de l'adhérence des revêtements céramiques par l'essai de pénétration Rockwell (ISO 26443:2008)

Hochleistungskeramik - Rockwell-Eindringprüfung zur Bewertung der Haftung von keramischen Schichten (ISO 26443:2008)

This European Standard was approved by CEN on 18 March 2016.

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COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

The text of ISO 26443:2008 has been prepared by Technical Committee ISO/TC 206 “Fine ceramics” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 26443:2016 by Technical Committee CEN/TC 184 “Advanced technical ceramics” the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2016, and conflicting national standards shall be withdrawn at the latest by October 2016.

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Endorsement notice

The text of ISO 26443:2008 has been approved by CEN as EN ISO 26443:2016 without any modification.

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I.S. EN ISO 26443:2016

INTERNATIONAL STANDARD

ISO 26443

First edition
2008-06-15

Fine ceramics (advanced ceramics, advanced technical ceramics) — Rockwell indentation test for evaluation of adhesion of ceramic coatings

Céramiques techniques — Évaluation de l'adhérence des revêtements céramiques par l'essai de pénétration de Rockwell

Reference number
ISO 26443:2008(E)

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Foreword

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ISO 26443 was prepared by Technical Committee ISO/TC 206, *Fine ceramics*.

Fine ceramics (advanced ceramics, advanced technical ceramics) — Rockwell indentation test for evaluation of adhesion of ceramic coatings

1 Scope

This International Standard specifies a method for the qualitative evaluation of the adhesion of ceramic coatings up to 20 µm thick by indentation with a Rockwell diamond indenter. The formation of cracks after indentation may also reveal cohesive failure. The indentations are made with a Rockwell hardness test instrument.

The method described in this International Standard may also be suitable for evaluating the adhesion of metallic coatings.

The test is not suitable for elastic coatings on hard substrates.

2 Normative references

The following referenced documents are indispensable for the application 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 6508-1, *Metallic materials — Rockwell hardness test — Part 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T)*

ISO 6508-2, *Metallic materials — Rockwell hardness test — Part 2: Verification and calibration of testing machines (scales A, B, C, D, E, F, G, H, K, N, T)*

3 Principle

An indentation is made into the coated surface of the specimen to be tested, whereby the coating near the indent can be damaged. The indentation and surrounding area are examined for cracks and/or flaking with the aid of an optical microscope.

4 Apparatus

The indentations shall be made in accordance with ISO 6508-1, following the procedure for a Rockwell hardness indentation.

The Rockwell hardness testing machine shall conform with the requirements of ISO 6508-2.

The contour of the diamond indenter shall be checked regularly by optical means (magnifying glass, optical microscope, stereomicroscope or projection screen). This check shall be made for at least four different axial sections. The indenter shall be replaced if this examination reveals any damage to the indenter (e.g. chipping). A magnification of at least ×200 is recommended to detect ring cracks or microwear.