SLOVENSKI STANDARD
SIST EN ISO 26424:2016

01-junij-2016

Nadomešča:
SIST EN 1071-6:2009

Fina keramika (sodobna keramika, sodobna tehnična keramika) - Ugotavljanje odpornosti prevlek proti obrabi z mikroabrazivnim preskusom (ISO 26424:2008)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of the abrasion resistance of coatings by a micro-scale abrasion test (ISO 26424:2008)

Hochleistungskeramik - Bestimmung der Beständigkeit gegen Abrieb von Schichten durch eine Mikroabriebprüfung (ISO 26424:2008)

Céramiques techniques - Détermination de la résistance à l'abrasion des revêtements par essai d'abrasion à micro-échelle (ISO 26424:2008)

Ta slovenski standard je istoveten z: **EN ISO 26424:2016**

ICS:

25.220.99	Druge obdelave in prevleke	Other treatments and coatings
81.060.30	Sodobna keramika	Advanced ceramics

SIST EN ISO 26424:2016 **en**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 26424

April 2016

ICS 81.060.30

Supersedes EN 1071-6:2007

English Version

Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of the abrasion resistance of coatings by a micro-scale abrasion test (ISO 26424:2008)

Céramiques techniques - Détermination de la résistance à l'abrasion des revêtements par essai d'abrasion à micro-échelle (ISO 26424:2008)

Hochleistungskeramik - Bestimmung der Beständigkeit gegen Abrieb von Schichten durch eine Mikroabriebprüfung (ISO 26424:2008)

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

The text of ISO 26424:2008 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 26424:2016 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of an identical text or by endorsement, at the latest by October 2016, and conflicting national standards shall be withdrawn at the latest by October 2016.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 26424:2008 has been approved by CEN as EN ISO 26424:2016 without any modification.

INTERNATIONAL STANDARD

ISO 26424

First edition
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Fine ceramics (advanced ceramics, advanced technical ceramics) — Determination of the abrasion resistance of coatings by a micro-scale abrasion test

Céramiques techniques — Détermination de la résistance à l'abrasion des revêtements par essai d'abrasion à micro-échelle

Reference number
ISO 26424:2008(E)

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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.

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ISO 26424 was prepared by Technical Committee ISO/TC 206, *Fine ceramics*.

Fine ceramics (advanced ceramics, advanced technical ceramics) — Determination of the abrasion resistance of coatings by a micro-scale abrasion test

1 Scope

This International Standard specifies a method for measuring the abrasive wear rate of ceramic coatings by means of a micro-scale abrasion wear test based on the well-known crater-grinding technique used for coating thickness determination in ISO 26423 [11].

The method can provide data on both coating and substrate wear rates, either by performing two separate tests or by careful analysis of the data from a single test series.

The method can be applied to samples with planar or non-planar surfaces, but the results analysis described in Clause 9 applies only to flat samples. For non-planar samples, a more complicated analysis, possibly requiring the use of numerical methods, is required.

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 3290-1, *Rolling bearings — Balls — Part 1: Steel balls*

ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

3 Terms and definitions

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

3.1
abrasive wear rate
abrasive wear coefficient
K
volume of material removed in unit sliding distance under a normal contact load of 1 N

4 Significance and use

Although few protective coatings are subject to single wear processes, the abrasive wear resistance of such coatings can play a decisive role in their performance. Hence, knowledge of the abrasive wear resistance of ceramic coatings can help in the proper selection of coatings for applications where abrasion plays a major role in their degradation. Although techniques exist to measure the abrasive wear behaviour of bulk materials and thick films (see References [1] to [3]), these techniques are not easily applied to thin films and the results are difficult to interpret when the methods are used on curved surfaces.