SLOVENSKI STANDARD
SIST EN ISO 26423:2016

01-junij-2016

Nadomešča:
SIST EN 1071-2:2004

Fina keramika (sodobna keramika, sodobna tehnična keramika) - Ugotavljanje gostote premaza z metodo čelnega brušenja (ISO 26423:2009)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of coating thickness by crater-grinding method (ISO 26423:2009)

Hochleistungskeramik - Bestimmung der Schichtdicke mit dem Kalottenschleifverfahren (ISO 26423:2009)

Céramiques techniques - Détermination de l'épaisseur de revêtement par la méthode de meulage de cratère (ISO 26423:2009)

Ta slovenski standard je istoveten z: **EN ISO 26423:2016**

ICS:

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

SIST EN ISO 26423:2016 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 26423

April 2016

ICS 81.060.30

Supersedes EN 1071-2:2002

English Version

Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of coating thickness by crater-grinding method (ISO 26423:2009)

Céramiques techniques - Détermination de l'épaisseur de revêtement par la méthode de meulage de cratère (ISO 26423:2009)

Hochleistungskeramik - Bestimmung der Schichtdicke mit dem Kalottenschleifverfahren (ISO 26423:2009)

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Ref. No. EN ISO 26423:2016 E

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European foreword

The text of ISO 26423:2009 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 26423:2016 by Technical Committee CEN/TC 184 “Advanced technical ceramics” the secretariat of which is held by DIN.

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INTERNATIONAL STANDARD

ISO 26423

First edition
2009-01-15

Fine ceramics (advanced ceramics, advanced technical ceramics) — Determination of coating thickness by crater-grinding method

Céramiques techniques — Détermination de l'épaisseur de revêtement par la méthode de meulage de cratère

Reference number
ISO 26423:2009(E)

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Published in Switzerland

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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 26423 was prepared by Technical Committee ISO/TC 206, *Fine ceramics*.

Fine ceramics (advanced ceramics, advanced technical ceramics) — Determination of coating thickness by crater-grinding method

1 Scope

This International Standard specifies a method for the determination of the thickness of ceramic coatings by a crater-grinding method, which includes the grinding of a spherical cavity and subsequent microscopic examination of the crater.

Because of the uncertainty introduced into the measurement of crater dimensions, the test is not suitable for use where the surface roughness of the coating and/or substrate exceeds 20 % of the coating thickness.

NOTE An alternative method for measurement of thickness, using a contact probe profilometer, is given in ISO 18452.

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 17025:2005, *General requirements for the competence of testing and calibration laboratories*

3 Symbols

For the purpose of this document, the following symbols apply.

D best estimate of the outer diameter of the crater, at the surface of the coating, in micrometres (see Figure 1);

d best estimate of the inner diameter of the crater, defined by the bottom of the coating layer, in micrometres (see Figure 1);

h thickness of the coating, in micrometres (see Figure 1);

m subscript indicating mean value (D_m, d_m, X_m, Y_m).

r_b radius of the ball, in micrometres (see Figure 1);

r_s radius of curvature of specimen;

l_T total penetration depth of the ball, in micrometres (see Figure 1);

l_t penetration depth of the ball in the substrate, in micrometres (see Figure 1);