

## SLOVENSKI STANDARD SIST EN 23326:2000

01-december-2000

Hardmetals - Determination of (the magnetization) coercivity (ISO 3326:1975)

Hardmetals - Determination of (the magnetization) coercivity (ISO 3326:1975)

Hartmetalle - Bestimmung der Koerzitivkraft (Magnetisierung) (ISO 3326:1975)

Métaux-durs - Détermination de la coercitivité (d'aimantation) (ISO 3326:1975)

Ta slovenski standard je istoveten z: EN 23326:1993

SIST EN 23326:2000

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ICS:

77.040.30 Kemijska analiza kovin Chemical analysis of metals

77.160 Metalurgija prahov Powder metallurgy

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**EUROPEAN STANDARD** 

EN 23326:1993

NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

April 1993

UDC 621.762.5:669-492.2:669.018.25:620.179.14

Descriptors:

Powder metallurgy, hard metals, physical tests, magnetic tests, coercive force, measurements

English version

Hardmetals - Determination of (the magnetization) coercivity (ISO 3326:1975)

Métaux-durs - Détermination de la correitivité DARD PRE Hartmetalle - Bestimmung der Koerzitivkraft (d'aimantation) (ISO 3326:1975)

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This European Standard was approved by CEN on 1993-04-02. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## CEN

European Committee for Standardization Comité Européen de Normalisation Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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## **Foreword**

In 1992 ISO 3326:1975 "Hardmetals - Determination of (the magnetization) coercivity" was submitted to the CEN Primary Questionnaire procedure.

Following the positive result of the CEN/CS Proposal ISO 3326:1975 was submitted to the CEN Formal Vote. The result of the Formal Vote was positive.

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 1993, and conflicting national standards shall be withdrawn at the latest by October 1993.

According to the Internal Regulations of CEN/CENELEC, the following countries are bound to implement this European Standard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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## **Endorsement notice**

The text of the International Standard ISO 3326:1975 was approved by CEN as a European Standard without any modification.

**SIST EN 23326:2000** 

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • MEЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

## Hardmetals — Determination of (the magnetization) coercivity

Métaux durs — Détermination de la coercitivité (d'aimantation)

First edition – 1975-02-15 iTeh STANDARD PREVIEW (standards.iteh.ai)

Descriptors: sintered products, hardmetals, tests, magnetic tests, magnetic properties, coercive force.

<u>SIST EN 23326:2000</u> https://standards.iteh.ai/catalog/standards/sist/f424455a-145a-4f8c-a1fe-855f84e0f83e/sist-en-23326-2000

UDC 669-492.8: 620.179.14

Ref. No. ISO 3326-1975 (E)

ISO 3326-1975 (E)

#### **FOREWORD**

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3326 was drawn up by Technical Committee ISO/TC 119, Powder metallurgical materials and products, and circulated to the Member Bodies in December 1973. (standards.iteh.ai)

It has been approved by the Member Bodies of the following countries:

https://standards.iteh.ai/catalog/standards/sist/f424455a-145a-4f8c-a1fe-Ireland 855f84e0f8\_5c/sist-en-23326-2000

Austria Italy

Turkey

Bulgaria Canada

Chile

United Kingdom Mexico Romania U.S.A.

Egypt, Arab Rep. of Finland

South Africa, Rep. of

U.S.S.R. Yugoslavia

France

Spain Sweden

The Member Body of the following country expressed disapproval of the document on technical grounds:

Japan

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## Hardmetals — Determination of (the magnetization) coercivity

### 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method of determining (the magnetization) coercivity of hardmetals containing not less than 3 % of a ferromagnetic binder by mass.

#### 2 REFERENCE

pieces. 1)

## ISO . . ., Hardmetals - Sampling and preparation of test $H_{cM}$ iTeh STANDARD PRE 3 PRINCIPLE Magnetization of a test piece in a d.c. magnetic field up to the state of technical saturation; determination of the sitehai) coercivity $H_{cM}$ of reverse direction which is necessary for complete demagnetization of the test piece (M = 0)ST EN 23326:2000 https://standards.iteh.ai/catalog/standards/sist/fd 45a-4f8c-a1

855f84e0f83e/sist-en-23326-2000

## 4 SYMBOLS AND DESIGNATIONS

Coercivity  $H_{cM}$ , in amperes per metre, as applied is the value of the reversed magnetic field required to reduce the intensity of magnetization in the test piece to zero. (See figure.)

## **5 APPARATUS**

Apparatus capable of the d.c. magnetization of the test piece up to the state of technical saturation in the d.c. magnetic field and providing its demagnetization.

The apparatus shall have an accuracy of 0,2 kA/m for coercivity values up to 20 kA/m and 1 % for values over 20 kA/m.

| Symbol          | Designation                               | Unit |
|-----------------|---|------|
| Н               | Magnetic field strength                   | kA/m |
| М               | Magnetization of the test piece           | kA/m |
| M <sub>s</sub>  | Magnetization at the technical saturation | kA/m |
| H <sub>cM</sub> | (Magnetization) coercivity                | kA/m |

**FIGURE** 

In order to reach technical saturation, the value of the magnetic field strength shall be 200 to 400 kA/m depending on the type of apparatus used.

## 6 SAMPLING

Sampling shall be carried out in accordance with ISO . . .

#### 7 PROCEDURE

- 7.1 Place the test piece in a d.c. magnetic field with its longest dimension in the direction of the field and magnetize it up to technical saturation.
- 7.2 Demagnetize the test piece in the d.c. magnetic field of reverse direction. The speed of demagnetization must be sufficiently low to give the accuracy specified in clause 5.
- 7.3 Determine the coercivity  $H_{cM}$ necessary demagnetization of the test piece.

<sup>1)</sup> In preparation.