Sintered metal materials, excluding hardmetals - Fatigue test pieces (ISO 3928:2016)

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 3928:2016 sisaldab Euroopa standardi EN ISO 3928:2016 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 3928:2016 consists of the English text of the European standard EN ISO 3928:2016.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 30.11.2016.	Date of Availability of the European standard is 30.11.2016.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 77.040.10, 77.160

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 3928

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ICS 77.160; 77.040.10

Supersedes EN ISO 3928:2006

English Version

Sintered metal materials, excluding hardmetals - Fatigue test pieces (ISO 3928:1999)

Matériaux métalliques frittés, à l'exclusion des métaux-durs - Éprouvettes pour essais de fatigue (ISO 3928:1999)

Sintermetallwerkstoffe, ausgenommen Hartmetalle - Probekörper für die Ermüdungsprüfung (ISO 3928:1999)

This European Standard was approved by CEN on 29 June 2016.

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This European Standard exists 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 CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No. EN ISO 3928:2016 E

European foreword

The text of ISO 3928:1999 has been prepared by Technical Committee ISO/TC 119 “Powder metallurgy” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 3928:2016.

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 January 2017, and conflicting national standards shall be withdrawn at the latest by January 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 3928:2006.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 3928:1999 has been approved by CEN as EN ISO 3928:2016 without any modification.

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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).

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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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 119, *Powder metallurgy*, Subcommittee SC 3, *Sampling and testing for sintered metal materials (excluding hardmetals)*.

This third edition cancels and replaces the second edition (ISO 3928:1999), which has been technically revised.

Sintered metal materials, excluding hardmetals — Fatigue test pieces

1 Scope

This document specifies

— the die cavity dimensions used for making fatigue test pieces by pressing and sintering, together with certain dimensions of the test piece obtained from such a die, and

— the dimensions of the test pieces machined from sintered and powder forged materials.

This document is applicable to all sintered metals and alloys, excluding hardmetals.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

4 Pressed and sintered test pieces for fatigue test by reverse bend and axial testing

4.1 General

The pressed and sintered piece may also be subjected to further treatment, such as sizing, polishing or heat treatment. If such treatments are applied, they shall be stated in the test report. In a metallographically examined cross section of a test piece, in the gauge region, the piece shall show no micro-lamination greater than 0,25 mm in length. The press tool shall be maintained in a good condition to avoid excessive burr. The edges of the sintered parts shall be broken in the gauge area to remove any burr from compaction.

4.2 Test piece specification: unnotched

Figure 2 a) shows a drawing of the unnotched test piece. The flatness and parallelism of 0,1 mm are mandatory. The other dimensions are advisory.

4.3 Test piece specification: notched

Figure 3 a) shows a drawing of the notched test piece. The flatness and parallelism of 0,1 mm are mandatory. The other dimensions are advisory. As the 5,5 mm tooling radius of the die is subject to wear, the corresponding radius dimension of the test piece shall be reported.