SLOVENSKI STANDARD
SIST EN ISO 4042:2001

01-julij-2001

Mehanski vezni elementi - Galvanske prevleke veznih elementov (ISO 4042:1999)

Fasteners - Electroplated coatings (ISO 4042:1999)

Verbindungselemente - Galvanische Überzüge (ISO 4042:1999)

Eléments de fixation - Revetements électrolytiques (ISO 4042:1999)

Ta slovenski standard je istoveten z: **EN ISO 4042:1999**

ICS:

21.060.01	Vezni elementi na splošno	Fasteners in general
25.220.40	Kovinske prevleke	Metallic coatings

SIST EN ISO 4042:2001 **en**

EUROPEAN STANDARD

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EUROPÄISCHE NORM

EN ISO 4042

June 1999

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English version

Fasteners - Electroplated coatings (ISO 4042:1999)

Eléments de fixation - Revêtements électrolytiques (ISO 4042:1999)

Verbindungselemente - Galvanische Überzüge (ISO 4042:1999)

This European Standard was approved by CEN on 26 May 1999.

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.

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 Central Secretariat has the same status as the official versions.

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

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

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

Foreword

The text of the International Standard ISO 4042:1999 has been prepared by Technical Committee ISO/TC 2 "Fasteners" in collaboration with Technical Committee CEN/TC 185 "Threaded and non-threaded mechanical fasteners and accessories", 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of an identical text or by endorsement, at the latest by December 1999, and conflicting national standards shall be withdrawn at the latest by December 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 4042:1999 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

Annex ZA (normative)
Normative references to international publications with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

Publication	Year	Title	EN	Year
ISO 2064	1980	Metallic and other non-organic coatings - Definitions and conventions concerning the measurement of thickness	EN ISO 2064	1994

INTERNATIONAL STANDARD

ISO 4042

Second edition
1999-06-15

Fasteners — Electroplated coatings

Éléments de fixation — Revêtements électrolytiques

Reference number
ISO 4042:1999(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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 4042 was prepared by Technical Committee ISO/TC 2, *Fasteners*, Subcommittee SC1, *Mechanical properties of fasteners*.

This second edition cancels and replaces the first edition (ISO 4042:1989) which has been technically revised.

Annexes D and E form a normative part of this International Standard. Annexes A, B, C, F and G are for information only.

Fasteners — Electroplated coatings

1 Scope

This International Standard specifies dimensional requirements for electroplated fasteners of steel or copper alloy. It specifies coating thicknesses and gives recommendations for hydrogen embrittlement relief for fasteners with high tensile strength or hardness and for surface-hardened fasteners.

This International Standard primarily concerns the electroplating of threaded fasteners, but it may also be applied to other threaded parts. For the applicability to screws that cut or form their own mating threads, see clause 8.

The specifications given in this International Standard may also be applied to non-threaded parts such as washers and pins.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 965-1:1999, *ISO general purpose metric screw threads — Tolerances — Part 1: Principles and basic data.*

ISO 965-2:1999, *ISO general purpose metric screw threads — Tolerances — Part 2: Limits of sizes for general purpose bolt and nut threads — Medium quality.*

ISO 965-3:1999, *ISO general purpose metric screw threads — Tolerances — Part 3: Deviations for constructional threads.*

ISO 1456:1988, *Metallic coatings — Electrodeposited coatings of nickel plus chromium and of copper plus nickel plus chromium.*

ISO 1458:1988, *Metallic coating — Electrodeposited coatings of nickel.*

ISO 1502:1996, *ISO general purpose metric screw threads — Gauges and gauging.*

ISO 2064:1996, *Metallic and other non-organic coatings — Definitions and conventions concerning the measurement of thickness.*

ISO 2081:1986, *Metallic coatings — Electroplated coatings of zinc on iron or steel.*

ISO 2082:1986, *Metallic coatings — Electroplated coatings of cadmium on iron or steel.*

ISO 3269:—[1], *Fasteners — Acceptance inspection*.

ISO 4520:1981, *Chromate conversion coatings on electroplated zinc and cadmium coatings*.

ISO 9227:1990, *Corrosion tests in artificial atmospheres — Salt spray tests*.

ISO 9587:—[2], *Metallic and other inorganic coatings — Pre-treatments of iron or steel for reducing the risk of hydrogen embrittlement*.

ISO 15330:—[2], *Fasteners — Preloading test for the detection of hydrogen embrittlement — Parallel bearing surface method.*

3 Terms and definitions

For the purposes of this International Standard, the definitions given in ISO 2064 (in particular, the definitions of significant surface, measuring area, local thickness and minimum local thickness) and ISO 3269 together with the following, apply.

3.1
batch
quantity of identical fasteners from the same manufacturing lot processed together at one time

3.2
production run
those batches of parts processed continuously without any changes in coating techniques or constituents

3.3
batch average thickness
calculated average thickness of a coating if it was uniformly distributed over the surface of the parts of the batch

3.4
baking
process of heating parts for a definite time at a given temperature in order to minimize the risk of hydrogen embrittlement

3.5
baking duration
time at which the parts are held at the specified temperature which they shall have completely reached

[1] To be published. (Revision of ISO 3269:1988)

[2] To be published.