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| STN | Spojovacie súčiastky Neelektrolyticky nanášané povlaky zo zinkových mikrolamiel (ISO 10683: 2018) | STN EN ISO 10683 02 1014 |
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Fasteners - Non-electrolytically applied zinc flake coatings (ISO/FDIS 10683:2018)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/19

Obsahuje: EN ISO 10683:2018, ISO 10683:2018

Oznámením tejto normy sa ruší
STN EN ISO 10683 (02 1014) z októbra 2014

128506

EUROPEAN STANDARD

EN ISO 10683

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2018

ICS 21.060.01; 25.220.40

Supersedes EN ISO 10683:2014

English Version

**Fasteners - Non-electrolytically applied zinc flake coatings
(ISO 10683:2018)**Fixations - Systèmes de revêtements non
électrolytiques de zinc lamellaire (ISO 10683:2018)Verbindungselemente - Nichtelektrolytisch
aufgebrachte Zinklamellenüberzüge (ISO 10683:2018)

This European Standard was approved by CEN on 10 August 2018.

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EN ISO 10683:2018 (E)

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European foreword

This document (EN ISO 10683:2018) has been prepared by Technical Committee ISO/TC 2 "Fasteners" in collaboration with Technical Committee CEN/TC 185 "Fasteners" the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by March 2019, and conflicting national standards shall be withdrawn at the latest by March 2019.

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Endorsement notice

The text of ISO 10683:2018 has been approved by CEN as EN ISO 10683:2018 without any modification.

INTERNATIONAL STANDARD

ISO
10683

Third edition
2018-08

Fasteners — Non-electrolytically applied zinc flake coating systems

*Fixations — Systèmes de revêtements non électrolytiques de zinc
lamellaire*



Reference number
ISO 10683:2018(E)

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

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ISO 10683:2018(E)

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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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, 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.

This document was prepared by Technical Committee ISO/TC 2, *Fasteners*, SC 14, *Surface coatings*.

This third edition cancels and replaces the second edition (ISO 10683:2014), which has been technically revised. The main changes compared to the previous edition are as follows:

- the normative references have been updated;
- the restriction of gauging to external threads in the 2nd paragraph of [6.2.2](#) has been removed;
- the last column in Table B.2 with maximum clearance for tolerance position e has been removed;
- [Annex C](#) has been revised completely.

Fasteners — Non-electrolytically applied zinc flake coating systems

1 Scope

This document specifies requirements for non-electrolytically applied zinc flake coating systems for steel fasteners. It is applicable to coatings:

- with or without hexavalent chromium;
- with or without top coat;
- with or without lubricant (integral lubricant and/or subsequently added lubricant).

It is applicable to bolts, screws, studs and nuts with ISO metric thread, to fasteners with non-ISO metric thread, and to non-threaded fasteners such as washers, pins, clips, etc.

This document does not specify requirements for such fastener properties as weldability or paintability. It is not applicable to mechanically applied zinc coatings.

NOTE Coatings in accordance with this document are especially used for high strength fasteners ($\geq 1\ 000$ MPa) to avoid risk of internal hydrogen embrittlement (IHE — see 4.4).

Information for design and assembly of coated fasteners is given in [Annex A](#).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1463, *Metallic and oxide coatings — Measurement of coating thickness — Microscopical method*

ISO 1502, *ISO general-purpose metric screw threads — Gauges and gauging*

ISO 1891-2, *Fasteners — Terminology — Part 2: Vocabulary and definitions for coatings*

ISO 3613:2010, *Metallic and other inorganic coatings — Chromate conversion coatings on zinc, cadmium, aluminium-zinc alloys and zinc-aluminium alloys — Test methods*

ISO 6988, *Metallic and other non organic coatings — Sulfur dioxide test with general condensation of moisture*

ISO 8991, *Designation system for fasteners*

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

ISO 16047, *Fasteners — Torque/clamp force testing*

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