



**SLOVENSKI STANDARD**  
**oSIST prEN ISO 10683:2011**  
**01-junij-2011**

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**Vezni elementi - Cinkova lamelna prevleka, ki ni izdelana z elektrolizo (ISO/DIS 10683:2011)**

Fasteners - Non-electrolytically applied zinc flake coatings (ISO/DIS 10683:2011)

Verbindungselemente - Nichtelektrolytisch aufgebrachte Zinklamellenüberzüge (ISO/DIS 10683:2011)

Éléments de fixation - Revêtements non électrolytiques de de zinc lamellaire (ISO/DIS 10683:2011)

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**Ta slovenski standard je istoveten z: prEN ISO 10683**

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**ICS:**

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

**oSIST prEN ISO 10683:2011**

**en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN ISO 10683**

March 2011

ICS 21.060.01; 25.220.40

Will supersede EN ISO 10683:2000

English Version

## Fasteners - Non-electrolytically applied zinc flake coatings (ISO/DIS 10683:2011)

Éléments de fixation - Revêtements non électrolytiques de  
de zinc lamellaire (ISO/DIS 10683:2011)

Verbindungselemente - Nichtelektrolytisch aufgebrachte  
Zinklamellenüberzüge (ISO/DIS 10683:2011)

This draft European Standard is submitted to CEN members for parallel enquiry. It has been drawn up by the Technical Committee CEN/TC 185.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

**Contents**

Page

Foreword.....3

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## Foreword

This document (prEN ISO 10683:2011) 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 DIN.

This document is currently submitted to the parallel Enquiry.

This document will supersede EN ISO 10683:2000.

### Endorsement notice

The text of ISO/DIS 10683:2011 has been approved by CEN as a prEN ISO 10683:2011 without any modification.

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## DRAFT INTERNATIONAL STANDARD ISO/DIS 10683

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# Fasteners — Non-electrolytically applied zinc flake coatings

*Éléments de fixation — Revêtements non électrolytiques de zinc lamellaire*

[Revision of first edition (ISO 10683:2000)]

ICS 21.060.01; 25.220.40

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### ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO-lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five-month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

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## Contents

Page

1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	2
4	General characteristics of the coating .....	2
4.1	Zinc flake coating systems .....	2
4.2	Composition of the systems .....	2
4.3	Mechanical and physical properties and curing .....	2
4.4	Pre-treatment processes and avoidance of hydrogen embrittlement .....	3
4.5	Coating systems and coating processes .....	3
5	Corrosion protection and testing .....	3
5.1	General .....	3
5.2	Neutral salt spray test .....	3
5.3	Sulfur dioxide test .....	4
5.4	Bulk handling, automatic processes including feeding and/or sorting, and transport .....	4
6	Dimensional requirements and testing .....	4
6.1	General .....	4
6.2	Bolts, screws, studs and nuts with ISO metric threads .....	5
6.3	Other fasteners .....	6
7	Mechanical and physical properties and testing .....	6
7.1	Appearance .....	6
7.2	Corrosion resistance related to temperature .....	6
7.3	Test methods for thickness or coating weight determination .....	6
7.4	Ductility .....	7
7.5	Adhesion/cohesion .....	7
7.6	Sacrificial cathodic protection .....	7
7.7	Torque/tension relationship .....	7
7.8	Determination of chromate .....	8
8	Applicability of tests .....	8
8.1	General .....	8
8.2	Tests mandatory for each lot .....	8
8.3	Tests for in-process control .....	8
8.4	Tests to be conducted when specified by the customer .....	8
9	Designation .....	9
9.1	Designation of zinc flake systems for the order .....	9
9.2	Designation of zinc flake coating systems for the label .....	11
10	Ordering requirements .....	11
11	Storage conditions .....	11
Annex A	(informative) Design and assembly of coated fasteners .....	12
A.1	Design of coated fasteners .....	12
A.2	Functional properties .....	13
A.3	Particular issues related to fasteners and coating processes .....	14
A.4	Storage of coated fasteners .....	15
Annex B	(informative) Coating thickness and thread clearance for ISO metric screw threads .....	16
B.1	General .....	16
B.2	Geometrical relationship between coating thickness and pitch diameter .....	16
B.3	Consideration related to coating process .....	17

## ISO/DIS 10683

B.4	Consequences for coating thickness.....	18
B.5	Compatibility between corrosion resistance and clearance.....	20
B.6	Examples of application.....	20
Annex C	(informative) Control of the aggressivity of the salt spray chamber for coated fasteners .....	22
C.1	Purpose.....	22
C.2	Frequency.....	22
C.3	Operating conditions.....	22
C.4	Example of quotation of aggressivity.....	28
C.5	Example of report for the annual control and monthly monitoring of the test chamber aggressivity .....	29

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SIST EN ISO 10683:2014

<https://standards.iteh.ai/catalog/standards/sist/f2f8b9f3-62d4-435c-a10b-6cc47ff379a1/sist-en-iso-10683-2014>

## 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 2.

The main task of technical committees is to prepare International Standards. 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.

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

ISO 10683 was prepared by Technical Committee ISO/TC 2, *Fasteners*, Subcommittee SC 1, and by Technical Committee CEN/TC 185, *Fasteners* in collaboration.

This second/third/... edition cancels and replaces the first/second/... edition (ISO 10683:2000), [clause(s) / subclause(s) / table(s) / figure(s) / annex(es)] of which [has / have] been technically revised.

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## Introduction

The revision of this International Standard was made in order to define the relevant requirements on zinc flake coated fasteners (coating systems with and without chromate) for all parties involved in the fastener field, i.e. chemical suppliers, coaters, fastener manufacturers, distributors and end users. It covers all types of fasteners, i.e. fasteners with ISO metric thread, fasteners with non-ISO metric thread (including thread forming, ASME inch 60° screw thread, etc.) and non-threaded fasteners (including washers, pins, clips, etc.). It also provides basic advices for the design and use of coated fasteners in assembly.

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# Fasteners — Non-electrolytically applied zinc flake coatings

## 1 Scope

This International Standard specifies requirements for non-electrolytically applied zinc flake coatings for steel fasteners. It applies to coatings:

- with or without chromate,
- with or without top coat,
- with or without lubricant (integral lubricant and/or subsequently added lubricant).

NOTE 1 National regulations for the restriction or prohibition of certain chemical elements should be taken into account in the countries or regions concerned.

It applies 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 and clips.

NOTE 2 Coatings according to this International Standard are especially used for high strength fasteners (> 1000 MPa) to avoid risk of hydrogen embrittlement (see 4.4).

Consideration for design and assembly of coated fasteners are given in Annex A.

This International Standard does not specify requirements for such fasteners properties as weldability or paintability. It does not apply to mechanically applied zinc coatings.

## 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 1463, *Metallic and oxide coatings — Measurement of coating thickness — Microscopical method*

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

ISO 3269, *Fasteners — Acceptance inspection*

ISO 3613:2000, *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 9227:2006, *Corrosion tests in artificial atmospheres — Salt spray tests*

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