

Metallic coatings - Electroplated coatings of zinc and zinc alloys on iron or steel with supplementary Cr(VI)-free treatment (ISO 19598:2016)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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|---|--|
| See Eesti standard EVS-EN ISO 19598:2016 sisaldab Euroopa standardi EN ISO 19598:2016 ingliskeelset teksti. | This Estonian standard EVS-EN ISO 19598:2016 consists of the English text of the European standard EN ISO 19598:2016. |
| 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. |
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English Version

Metallic coatings - Electroplated coatings of zinc and zinc alloys on iron or steel with supplementary Cr(VI)-free treatment (ISO 19598:2016)

Revêtements métalliques - Revêtements électrolytiques de zinc et d'alliages de zinc sur du fer ou de l'acier avec traitement supplémentaire sans Cr(VI) (ISO 19598:2016)

Metallische Überzüge - Galvanische Zink- und Zinklegierungsüberzüge auf Eisenwerkstoffen mit zusätzlichen Cr(VI)-freien Behandlungen (ISO 19598:2016)

This European Standard was approved by CEN on 1 October 2016.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

This document (EN ISO 19598:2016) has been prepared by Technical Committee ISO/TC 107 “Metallic and other inorganic coatings” in collaboration with Technical Committee CEN/TC 262 “Metallic and other inorganic coatings, including for corrosion protection and corrosion testing of metals and alloys” 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of an identical text or by endorsement, at the latest by May 2017, and conflicting national standards shall be withdrawn at the latest by May 2017.

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Endorsement notice

The text of ISO 19598:2016 has been approved by CEN as EN ISO 19598:2016 without any modification.

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Foreword

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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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The committee responsible for this document is ISO/TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 3, *Electrodeposited coatings and related finishes*.

Introduction

The chromium(VI) free systems differ in 2 points from the chromium(VI)-containing systems:

- a) there is no self-healing of the system;
- b) higher temperature resistance ($> 150\text{ °C}$), the limit for chromium(VI) containing systems, is $\leq 70\text{ °C}$.

Metallic coatings — Electroplated coatings of zinc and zinc alloys on iron or steel with supplementary Cr(VI)-free treatment

1 Scope

This International Standard applies to electrodeposited zinc and zinc-alloy coatings on iron and steel with Cr(VI)-free passivation. The zinc-alloy coatings contain nickel or iron as alloying elements (referred to as zinc/nickel and zinc/iron coatings, respectively).

The main purpose of the coatings or coating systems is protecting iron and steel components against corrosion.

This International Standard specifies

- the designations to be used for the above coating systems,
- the minimum corrosion resistance to be achieved in specified test procedures, and
- the minimum coating thicknesses required.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2080, *Metallic and other inorganic coatings — Surface treatment, metallic and other inorganic coatings — Vocabulary*

ISO 3497, *Metallic coatings — Measurement of coating thickness — X-ray spectrometric methods*

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

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

ISO 9587, *Metallic and other inorganic coatings — Pretreatment of iron or steel to reduce the risk of hydrogen embrittlement*

ISO 9588, *Metallic and other inorganic coatings — Post-coating treatments of iron or steel to reduce the risk of hydrogen embrittlement*

ISO 27830:2008, *Metallic and other inorganic coatings — Guidelines for specifying metallic and inorganic coatings*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 2080 apply.