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Electroplated coatings of tin-nickel alloy - Specification and test methods (ISO 2179:1986)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 2179:2016 sisaldab Euroopa standardi EN ISO 2179:2016 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 2179:2016 consists of the English text of the European standard EN ISO 2179:2016.
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 20.04.2016.	Date of Availability of the European standard is 20.04.2016.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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ICS 25.220.40

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EUROPEAN STANDARD

EN ISO 2179

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2016

ICS 25.220.40

English Version

Electroplated coatings of tin-nickel alloy - Specification and test methods (ISO 2179:1986)

Dépôts électrolytiques d'alliage étain-nickel -
Spécifications et méthodes d'essai (ISO 2179:1986)

Elektrolytisch hergestellte Überzüge aus einer Zinn-
Nickel-Legierung - Anforderungen und Prüfverfahren
(ISO 2179:1986)

This European Standard was approved by CEN on 2 April 2016.

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 CEN-CENELEC Management Centre or to any CEN member.

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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

The text of ISO 2179:1986 has been prepared by Technical Committee ISO/TC 107 “Metallic and other inorganic coatings” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 2179:2016 by Technical Committee CEN/TC 262 “Metallic and other inorganic coatings” 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 October 2016, and conflicting national standards shall be withdrawn at the latest by October 2016.

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Endorsement notice

The text of ISO 2179:1986 has been approved by CEN as EN ISO 2179:2016 without any modification.

Electroplated coatings of tin-nickel alloy — Specification and test methods

0 Introduction

This International Standard specifies requirements for electroplated coatings of the intermetallic compound SnNi of the approximate composition 65 % (m/m) tin and 35 % (m/m) nickel. Such coatings are generally recognized as being hard, wear-resistant and corrosion resistant.

The coatings are intended for use on both ferrous and non-ferrous basis metals and also on printed circuit boards. A classification scheme is included by which the nature of the basis metal and undercoat, if any, and the coating thickness can be defined.

Annex B gives additional information as guidance to the user.

It is essential that the purchaser should state the information itemized in 4.1 and, if appropriate, 4.2. Specifying ISO 2179 without this information is insufficient.

1 Scope and field of application

This International Standard specifies requirements for electroplated coatings of the intermetallic compound SnNi, with a composition of approximately 65 % (m/m) tin and 35 % (m/m) nickel.

It does not apply to

- a) threaded components;
- b) coatings on sheet, strip or wire in the unfabricated form, or on articles made from them;
- c) coatings on coil springs;
- d) electroplating of steels with tensile strength greater than 1 000 MPa¹⁾ (or of corresponding hardness), because such steels are subject to hydrogen embrittlement (see 8.2).

1) 1 MPa = 1 N/mm²

2) At present at the stage of draft.

2 References

- ISO 1462, *Metallic coatings — Coatings other than those anodic to the basis metal — Accelerated corrosion tests — Method for the evaluation of the results.*
- ISO 1463, *Metallic and oxide coatings — Measurement of coating thickness — Microscopical method.*
- ISO 2064, *Metallic and other non-organic coatings — Definitions and conventions concerning the measurement of thickness.*
- ISO 2177, *Metallic coatings — Measurement of coating thickness — Coulometric method by anodic dissolution.*
- ISO 2819, *Metallic coatings on metallic substrates — Electrodeposited and chemically deposited coatings — Review of methods available for testing adhesion.*
- ISO 2859, *Sampling procedures and tables for inspection by attributes.*²⁾
- ISO 3497, *Metallic coatings — Measurements of coating thickness — X-ray spectrometric methods.*
- ISO 3543, *Metallic and non-metallic coatings — Measurements of thickness — Beta backscatter method.*
- ISO 4519, *Electrodeposited metallic coatings and related finishes — Sampling procedures for inspection by attributes.*
- ISO 6988, *Metallic and other non-organic coatings — Sulfur dioxide test with general condensation of moisture.*

3 Definition

significant surface: The part of the article covered or to be covered by the coating and for which the coating is essential for serviceability and/or appearance.

(Definition taken from ISO 2064.)