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STN	**Elektrolyticky vylúčené povlaky niklu na magnetických a nemagnetických podkladoch Meranie hrúbky povlaku Magnetická metóda (ISO 2361: 2025)**	**STN EN ISO 2361** 03 8182

Electrodeposited nickel coatings on magnetic and non-magnetic substrates - Measurement of coating thickness - Magnetic method (ISO 2361:2025)

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. 10/25

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Oznámením tejto normy sa ruší
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EUROPEAN STANDARD

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EN ISO 2361

July 2025

ICS 25.220.40 Supersedes EN ISO 2361:1995

English Version

Electrodeposited nickel coatings on magnetic and non-magnetic substrates - Measurement of coating thickness - Magnetic method (ISO 2361:2025)

Revêtements électrolytiques de nickel sur substrat magnétique et non magnétique - Mesurage de l'épaisseur du revêtement - Méthode magnétique (ISO 2361:2025)

Elektrolytisch erzeugte Nickelschichten auf magnetischen und nichtmagnetischen Grundmetallen - Messen der Schichtdicke - Magnetverfahren (ISO 2361:2025)

This European Standard was approved by CEN on 30 June 2025.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN ISO 2361:2025) 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of an identical text or by endorsement, at the latest by January 2026, and conflicting national standards shall be withdrawn at the latest by January 2026.

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

This document supersedes EN ISO 2361:1995.

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Endorsement notice

The text of ISO 2361:2025 has been approved by CEN as EN ISO 2361:2025 without any modification.

International Standard

ISO 2361

Electrodeposited nickel coatings on magnetic and non-magnetic substrates — Measurement of coating thickness — Magnetic method

Revêtements électrolytiques de nickel sur substrat magnétique et non magnétique — Mesurage de l'épaisseur du revêtement — Méthode magnétique

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

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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.

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 document 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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For an explanation of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC *107*, *Metallic and other inorganic coatings*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 262, *Metallic and other inorganic coatings, including for corrosion protection and corrosion testing of metals and alloys*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 2361:1982), which has been technically revised.

The main changes are as follows:

— the nickel measuring methods were split into Type A, Type B and Type A and B;

— common measurement ranges were added for every method;

— subclauses on the factors that influence the measurement uncertainty were added;

— restructured and split into clauses and subclauses;

— Clause 9 on the test report was added;

— editorial changes were made.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

International Standard **ISO 2361:2025(en)**

Electrodeposited nickel coatings on magnetic and non-magnetic substrates — Measurement of coating thickness — Magnetic method

1 Scope

This document specifies the method for non-destructive thickness measurement via the magnetic type of electrodeposited nickel coatings, also called “e-nickel”, on magnetic or non-magnetic substrates.

It is possible that the method is not applicable to autocatalytic (electroless) nickel coatings, since these coatings are often non-magnetic due to their chemical composition.

For the purposes of this document, two types of substrates are distinguished:

a) nickel coatings on magnetic substrates (type A coatings);

b) nickel coatings on non-magnetic substrates (type B coatings).

Not all instruments are applicable to both types of coating.

The effective measuring ranges of instruments using the principle of magnetic attraction are up to 50 µm for type A coatings and up to 25 µm for type B coatings.

For instruments using the principle of reluctance, the effective ranges are much greater, up to 1 mm or even more. This method is applicable to both types of coatings.

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 2064, *Metallic and other inorganic coatings — Definitions and conventions concerning the measurement of thickness*

ISO 2177, *Metallic coatings — Measurement of coating thickness — Coulometric method by anodic dissolution*