ICS 25.220.20 SLOVENSKÁ TECHNICKÁ NORMA Marec 2026

STN	**Anodická oxidácia hliníka a jeho zliatin Stanovenie kvality utesnených anodických oxidových povlakov meraním úbytku hmotnosti po ponorení do roztokov kyselín (ISO 3210: 2025)**	**STN EN ISO 3210** 42 4304

Anodizing of aluminium and its alloys - Assessment of quality of sealed anodic oxidation coatings by measurement of the loss of mass after immersion in acid solution(s) (ISO 3210:2025)

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. 02/26

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Oznámením tejto normy sa ruší
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Supersedes EN ISO 3210:2017

English Version

Anodizing of aluminium and its alloys - Assessment of quality of sealed anodic oxidation coatings by measurement of the loss of mass after immersion in acid solution(s) (ISO 3210:2025)

Anodisation de l'aluminium et de ses alliages - Évaluation de la qualité des couches anodiques colmatées par mesurage de la perte de masse après immersion en solution(s) acide(s) (ISO 3210:2025)

Anodisieren von Aluminium und Aluminiumlegierungen - Prüfung der Qualität von verdichteten, anodisch erzeugten Oxidschichten durch Bestimmung des Masseverlustes nach Eintauchen in Säure-Lösung(en) (ISO 3210:2025)

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European foreword

This document (EN ISO 3210:2025) has been prepared by Technical Committee ISO/TC 79 "Light metals and their alloys " in collaboration with Technical Committee CEN/TC 132 “Aluminium and aluminium alloys” the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by April 2026, and conflicting national standards shall be withdrawn at the latest by April 2026.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.

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Endorsement notice

The text of ISO 3210:2025 has been approved by CEN as EN ISO 3210:2025 without any modification.

International Standard

ISO 3210

Fifth edition
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Anodizing of aluminium and its alloys — Assessment of quality of sealed anodic oxidation coatings by measurement of the loss of mass after immersion in acid solution(s)

Anodisation de l'aluminium et de ses alliages — Évaluation de la qualité des couches anodiques colmatées par mesurage de la perte de masse après immersion en solution(s) acide(s)

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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 79, *Light metals and their alloys*, Subcommittee SC 2, *Organic and anodic oxidation coatings on aluminium,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 132, *Aluminium and aluminium alloys,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fifth edition cancels and replaces the fourth edition (ISO 3210:2017), which has been technically revised.

The main changes are as follows:

— the maximum limit for the dissolved anodic oxidation coating and aluminium content in the test solutions A and B has been reduced;

— the content of dissolved aluminium oxidation coating and aluminium in the used test solution has been added to the test report in Clause 10.

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 3210:2025(en)**

Anodizing of aluminium and its alloys — Assessment of quality of sealed anodic oxidation coatings by measurement of the loss of mass after immersion in acid solution(s)

1 Scope

This document specifies two methods to assess the quality of sealed anodic oxidation coatings on aluminium and its alloys:

— Method 1 which assesses the quality of sealed anodic oxidation coatings by measuring the loss of mass after immersion in a phosphoric acid based solution without prior acid treatment;

— Method 2 which assesses the quality of sealed anodic oxidation coatings by measuring the loss of mass after immersion in a phosphoric acid based solution with prior acid treatment.

Method 1 is applicable to anodic oxidation coatings intended for decorative or protective purposes or where resistance to staining is important.

Method 2 is applicable to anodic oxidation coatings intended for outdoor architectural purposes. For less severe applications, Method 1 can be more suitable.

The methods are not applicable to the following:

— hard-type anodic oxidation coatings which normally are not sealed;

— anodic oxidation coatings that have been sealed only in dichromate solutions;

— anodic oxidation coatings produced in chromic acid solutions;

— anodic oxidation coatings that have undergone treatment to render them hydrophobic.

NOTE 1 While the methods assess the quality of hydrothermal sealing applied to anodized aluminium, they can be appropriate for other sealing methods.

NOTE 2 The methods are destructive and can serve as reference methods in case of doubt or dispute regarding the results of the test for loss of absorptive power (see ISO 2143) or the measurement of admittance (see ISO 2931).

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 7583, *Anodizing of aluminium and its alloys — Terms and definitions*