



NSAI
Standards

Irish Standard
I.S. EN ISO 2085:2018

Anodizing of aluminium and its alloys -
Check for continuity of thin anodic
oxidation coatings - Copper sulfate test
(ISO 2085:2018)

I.S. EN ISO 2085:2018

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National Foreword

I.S. EN ISO 2085:2018 is the adopted Irish version of the European Document EN ISO 2085:2018, Anodizing of aluminium and its alloys - Check for continuity of thin anodic oxidation coatings - Copper sulfate test (ISO 2085:2018)

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EUROPEAN STANDARD

EN ISO 2085

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2018

ICS 25.220.20

Supersedes EN ISO 2085:2010

English Version

Anodizing of aluminium and its alloys - Check for continuity of thin anodic oxidation coatings - Copper sulfate test (ISO 2085:2018)

Anodisation de l'aluminium et de ses alliages - Contrôle de la continuité des couches anodiques minces - Essai au sulfate de cuivre (ISO 2085:2018)

Anodisieren von Aluminium und Aluminiumlegierungen - Prüfung der Kontinuität dünner anodisch erzeugter Oxidschichten - Kupfersulfatversuch (ISO 2085:2018)

This European Standard was approved by CEN on 20 September 2018.

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EN ISO 2085:2018 (E)

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European foreword

This document (EN ISO 2085:2018) 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of an identical text or by endorsement, at the latest by March 2019, and conflicting national standards shall be withdrawn at the latest by March 2019.

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 2085:2010.

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Endorsement notice

The text of ISO 2085:2018 has been approved by CEN as EN ISO 2085:2018 without any modification.

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INTERNATIONAL STANDARD

ISO 2085

Third edition
2018-08

Anodizing of aluminium and its alloys — Check for continuity of thin anodic oxidation coatings — Copper sulfate test

*Anodisation de l'aluminium et de ses alliages — Contrôle de la
continuité des couches anodiques minces — Essai au sulfate de cuivre*



Reference number
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ISO 2085:2018(E)

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 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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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*.

This third edition cancels and replaces the second edition (ISO 2085:2010), which has been technically revised. The main change compared to the previous edition is that a test area has been added in [Clause 6](#).

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.

Anodizing of aluminium and its alloys — Check for continuity of thin anodic oxidation coatings — Copper sulfate test

1 Scope

This document specifies a method for checking the continuity of thin anodic oxidation coatings on aluminium and its alloys by a copper sulfate contact test.

The use of this method is limited to anodic oxidation coatings of thickness less than 5 µm or coatings that have been deformed, which includes those produced by coil anodizing techniques.

NOTE The method described enables a rapid check to be made for the continuity of a thin coating of aluminium oxidation on aluminium and its alloys. In cases of doubt regarding a visible fault on the surface of a coating, the use of this method makes it possible to verify whether the fault corresponds to a local gap in the coating that exposes bare metal.

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*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 7583 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Principle

Drops of copper sulfate reagent are placed on surface areas of about 100 mm², chosen at will on the test specimens and avoiding the anodizing contact areas. If the area includes points where the metal is either bare or poorly covered, chemical deposition of copper takes place on the aluminium, accompanied by a release of gas. The drops of applied reagent can be examined immediately upon application, either with the naked eye or with a magnifying glass, for the release of gas from points where the metal is bare, which is almost instantaneous. After the test, black and/or dark reddish spots can be seen where the coating is not continuous.

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