

Anodizing of aluminium and its alloys - Determination of the comparative fastness to ultraviolet light and heat of coloured anodic oxidation coatings (ISO 6581:2018)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 6581:2018 sisaldab Euroopa standardi EN ISO 6581:2018 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 6581:2018 consists of the English text of the European standard EN ISO 6581:2018.
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

Anodizing of aluminium and its alloys - Determination of
the comparative fastness to ultraviolet light and heat of
coloured anodic oxidation coatings (ISO 6581:2018)

Anodisation de l'aluminium et de ses alliages -
Détermination de la solidité comparée à la lumière
ultraviolette et à la chaleur des couches anodiques
colorées (ISO 6581:2018)

Anodisieren von Aluminium und
Aluminiumlegierungen - Vergleichsbestimmung der
Beständigkeit von gefärbten, anodisch erzeugten
Oxidschichten gegen ultraviolettes Licht und Wärme
(ISO 6581:2018)

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

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

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European foreword

This document (EN ISO 6581:2018) 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of an identical text or by endorsement, at the latest by March 2019, and conflicting national standards shall be withdrawn at the latest by March 2019.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 6581:2010.

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Endorsement notice

The text of ISO 6581:2018 has been approved by CEN as EN ISO 6581:2018 without any modification.

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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 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 6581:2010), which has been technically revised to add information about the test specimen.

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.

Introduction

The test described in this document represents severe exposure to ultraviolet light and, because of its severity, provides a very rapid determination of the comparative light-fastness of coloured anodic oxidation coatings.

It has to be realized, however, that the light emitted by the mercury vapour source used in the test has a discontinuous spectrum and a high content of ultraviolet radiation. Therefore, care is taken when comparing the results of this test with the results of exposure to sunlight.

Considerable heat is generated by the light source and so the test is carried out in such a way that the temperature of the test specimens during the test does not exceed 100 °C.

Anodizing of aluminium and its alloys — Determination of the comparative fastness to ultraviolet light and heat of coloured anodic oxidation coatings

1 Scope

This document specifies a comparative method for the determination of the fastness of coloured anodic oxidation coatings to ultraviolet (UV) light and heat.

The method is not suitable for testing coloured anodic oxidation coatings that are heat sensitive.

NOTE Dark-coloured test specimens will normally reach the highest temperatures.

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

Test specimens are exposed to ultraviolet light and the resulting colour changes are observed and compared with standard specimens.

5 Apparatus

5.1 General

The apparatus consists of a cabinet made from suitable heat-resistant material with a source of ultraviolet light and an arrangement of specimen holders or supports placed at an equal distance from the light source.

5.2 Cabinet

The cabinet shall be designed so that all exposed test specimens can be positioned at equal distances from the lamp.

NOTE A cylindrical cabinet with the lamp placed vertically in the centre, or a cabinet of rectangular cross-section with the lamp placed horizontally above a support on which the test specimens are placed, is suitable.