ICS 25.220.20 SLOVENSKÁ TECHNICKÁ NORMA September 2018

STN	**Anodická oxidácia hliníka a jeho zliatin Meranie zrkadlovej odrazivosti a zrkadlového lesku anodických oxidových povlakov pri uhle 20°, 45°, 60° alebo 85° (ISO 7668: 2018)**	**STN EN ISO 7668** 42 4334

Anodizing of aluminium and its alloys - Measurement of specular reflectance and specular gloss of anodic oxidation coatings at angles of 20 degrees, 45 degrees, 60 degrees or 85 degrees (ISO 7668:2018)

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. 08/18

Obsahuje: EN ISO 7668:2018, ISO 7668:2018

Oznámením tejto normy sa ruší
STN EN ISO 7668 (42 4334) z mája 2011

127149

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 7668

March 2018

ICS 25.220.20

Supersedes EN ISO 7668:2010

English Version

Anodizing of aluminium and its alloys - Measurement of specular reflectance and specular gloss of anodic oxidation coatings at angles of 20 degrees, 45 degrees, 60 degrees or 85 degrees (ISO 7668:2018)

Anodisation de l'aluminium et de ses alliages - Mesurage des caractéristiques de réflectivité et de brillant spéculaires des couches anodiques à angle fixe de 20 degrés, 45 degrés, 60 degrés ou 85 degrés (ISO 7668:2018)

Anodisieren von Aluminium und Aluminiumlegierungen - Messung des gerichteten Reflexionsgrades und des Spiegelglanzes von anodisch erzeugten Oxidschichten bei Winkeln von 20°, 45°, 60° oder 85° (ISO 7668:2018)

This European Standard was approved by CEN on 14 March 2018.

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.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword

This document (EN ISO 7668:2018) 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 September 2018, and conflicting national standards shall be withdrawn at the latest by September 2018.

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 7668:2010.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 7668:2018 has been approved by CEN as EN ISO 7668:2018 without any modification.

INTERNATIONAL STANDARD

ISO 7668

Third edition
2018-02

Anodizing of aluminium and its alloys — Measurement of specular reflectance and specular gloss of anodic oxidation coatings at angles of 20°, 45°, 60° or 85°

Anodisation de l'aluminium et de ses alliages — Mesurage des caractéristiques de réflectivité et de brillant spéculaires des couches anodiques à angle fixe de 20°, 45°, 60° ou 85°

Reference number
ISO 7668:2018(E)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Published in Switzerland

Contents

Page

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on 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 the following URL: 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 7668:2010), which has been technically revised. The main technical changes are as follows:

— the normative references have been added;

— the definition of specular gloss has been revised;

— the references to CIE spectral luminous efficiency and CIE standard illuminants C and D65 have been added.

Introduction

Specular reflectance and specular gloss are not unique physical properties of a surface. They vary with the angle of measurement, and with the aperture dimensions that define the incident and the reflected beams, such that measurements of these properties are not independent of the apparatus being used.

The specular reflectance of most surfaces increases with the angle of measurement and accounts for the use of reflectometers with various angles as, for example, for painted surfaces. The specular reflectance characteristics of anodized aluminium, however, do not always behave in the normal manner and, because of its property of double reflection, reflected light comes partly from the film surface and partly from the underlying metal. It is advisable to measure the specular reflectance characteristics at 20°, 45°, 60° and 85° to obtain a complete understanding of the specular reflectance properties of the anodized surface, and careful thought should be given to which method or methods are most relevant in any particular situation. The specular reflectance of bright-anodized aluminium with a mirror finish is best measured using 45° or 20° geometry.

INTERNATIONAL STANDARD **ISO 7668:2018(E)**

Anodizing of aluminium and its alloys — Measurement of specular reflectance and specular gloss of anodic oxidation coatings at angles of 20°, 45°, 60° or 85°

1 Scope

This document specifies methods for the measurement of specular reflectance and specular gloss of flat samples of anodized aluminium using geometries of 20° (Method A), 45° (Method B), 60° (Method C) and 85° (Method D); and of specular reflectance by an additional 45° method (Method E) employing a narrow acceptance angle.

The methods described are intended mainly for use with clear anodized surfaces. They can be used with colour-anodized aluminium, but only with similar colours.

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*

ISO 11664-1, *Colorimetry — Part 1: CIE standard colorimetric observers*

ISO 11664-2, *Colorimetry — Part 2: CIE standard illuminants*