Irish Standard
I.S. EN ISO 8994:2011

Anodizing of aluminium and its alloys - Rating system for the evaluation of pitting corrosion - Grid method (ISO 8994:2011)

I.S. EN ISO 8994:2011

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English Version

Anodizing of aluminium and its alloys - Rating system for the evaluation of pitting corrosion - Grid method (ISO 8994:2011)

Anodisation de l'aluminium et de ses alliages - Système de cotation de la corrosion par piqûres - Méthode par quadrillage (ISO 8994:2011)

Anodisieren von Aluminium und Aluminiumlegierungen - Bewertungssystem für Lochkorrosion - Rasterzählmethode (ISO 8994:2011)

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

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Contents

Page

Foreword

This document (EN ISO 8994:2011) 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of an identical text or by endorsement, at the latest by September 2011, and conflicting national standards shall be withdrawn at the latest by September 2011.

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

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The text of ISO 8994:2011 has been approved by CEN as a EN ISO 8994:2011 without any modification.

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I.S. EN ISO 8994:2011

INTERNATIONAL STANDARD

ISO 8994

Second edition
2011-03-01

Anodizing of aluminium and its alloys — Rating system for the evaluation of pitting corrosion — Grid method

Anodisation de l'aluminium et de ses alliages — Système de cotation de la corrosion par piqûres — Méthode par quadrillage

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 8994 was prepared by Technical Committee ISO/TC 79, *Light metals and their alloys*, Subcommittee SC 2, *Organic and anodic oxidation coatings on aluminium*.

This second edition cancels and replaces the first edition (ISO 8994:1989), which has been technically revised.

Anodizing of aluminium and its alloys — Rating system for the evaluation of pitting corrosion — Grid method

1 Scope

This International Standard specifies a grid rating system that provides a means of defining levels of performance of anodic oxidation coatings on aluminium and its alloys that have been subjected to corrosion tests.

This rating system is applicable to pitting corrosion resulting from

— accelerated tests,

— exposure to corrosive environments, and

— practical service tests.

This International Standard takes into account only pitting corrosion of the basis metal resulting from penetration of the protective anodic oxidation coating.

NOTE 1 ISO 8993[3] describes a similar rating system based on defined chart scales.

NOTE 2 The grid rating system is frequently used for rating the results of short-term corrosion tests for relatively thin anodic oxidation coating, such as those used in the automotive industry.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
significant surface
part of the article covered or to be covered by the coating, for which the coating is essential for serviceability and/or appearance

NOTE 1 Adapted from ISO 2064:1996[1], definition 3.1.

NOTE 2 The edges of an article are not normally included in the significant surface.

2.2
corrosion pit
surface corrosion defect at which the anodic oxidation coating is penetrated

NOTE Discoloration or other surface defects which do not penetrate the anodic coating do not count as corrosion pits.