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Standards

Irish Standard  
I.S. EN ISO 8251:2011

# Anodizing of aluminium and its alloys - Measurement of abrasion resistance of anodic oxidation coatings (ISO 8251:2011)

## I.S. EN ISO 8251:2011

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English Version

**Anodizing of aluminium and its alloys - Measurement of abrasion resistance of anodic oxidation coatings (ISO 8251:2011)**

Anodisation de l'aluminium et de ses alliages -  
Détermination de la résistance à l'abrasion des couches  
d'oxyde anodiques (ISO 8251:2011)

Anodisieren von Aluminium und Aluminiumlegierungen -  
Messung der Abriebfestigkeit von anodisch erzeugten  
Oxidschichten (ISO 8251:2011)

This European Standard was approved by CEN on 29 January 2011.

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## **Foreword**

This document (EN ISO 8251:2011) 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of an identical text or by endorsement, at the latest by August 2011, and conflicting national standards shall be withdrawn at the latest by August 2011.

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I.S. EN ISO 8251:2011  
**INTERNATIONAL  
STANDARD**

**ISO  
8251**

Second edition  
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**Anodizing of aluminium and its alloys —  
Measurement of abrasion resistance of  
anodic oxidation coatings**

*Anodisation de l'aluminium et de ses alliages — Détermination  
de la résistance à l'abrasion des couches d'oxyde anodiques*



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ISO 8251:2011(E)

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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.

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.

ISO 8251 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 8251:1987) as well as ISO 8252:1987, which have been technically revised.

The main changes compared to the first edition are as follows:

- a) the inclusion of the test previously described in ISO 8252:1987;
- b) the inclusion of the falling sand test;
- c) the use of the methods for coatings produced by hard anodizing has been moved to ISO 10074:2010.

## **Introduction**

The resistance of anodic oxidation coatings to abrasion is an important property. As it is dependent upon the composition of the metal, the thickness of the coating and the conditions of anodizing and sealing, it can give information about the quality of the coating, its potential resistance to erosion or wear and its performance in service. For example, the effect of an abnormally high anodizing temperature, which could cause potential deterioration in service by chalking of the surface layers, may be readily detected by means of an abrasive wear resistance test.

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