

---

---

**Anodizing of aluminium and its  
alloys — Terms and definitions**

*Anodisation de l'aluminium et de ses alliages — Termes et définitions*



This document is a preview generated by EMS



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2013

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Terms and definitions</b> .....	<b>1</b>
2.1 Anodized aluminium products.....	1
2.2 Finishes.....	3
2.3 Pretreatments.....	3
2.4 Anodic oxidation processes.....	4
2.5 Anodic aluminium oxide.....	5
2.6 Colouring.....	6
2.7 Sealing.....	7
2.8 Process operation and control.....	8
2.9 Defects.....	9
2.10 Tests.....	10
2.11 Properties and performance.....	12
<b>Bibliography</b> .....	<b>14</b>

## 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. [www.iso.org/directives](http://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. [www.iso.org/patents](http://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.

The committee responsible for this document is 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 7583:1986), which has been technically revised. The title has been changed and the English and French language versions are now presented as separate documents.

# Anodizing of aluminium and its alloys — Terms and definitions

## 1 Scope

This International Standard defines terms concerning anodized aluminium.

## 2 Terms and definitions

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

### 2.1 Anodized aluminium products

#### 2.1.1

##### **anodized aluminium**

aluminium with an anodic oxidation coating produced by an electrolytic oxidation process in which the surface of the aluminium is converted to a layer, mainly of oxide, having protective, decorative or functional properties

#### 2.1.2

##### **architectural anodizing**

anodizing to produce an architectural finish to be used in permanent, exterior and static situations where both appearance and long life are important

#### 2.1.3

##### **batch anodizing**

anodizing aluminium parts by racking them together, passing them through a succession of processes including anodizing, and unranking

#### 2.1.4

##### **bright anodized aluminium**

anodized aluminium with high specular reflectance as its primary characteristic

#### 2.1.5

##### **clear anodized aluminium**

anodized aluminium with a substantially colourless, translucent anodic oxidation coating

#### 2.1.6

##### **coil anodizing**

strip anodizing

continuous anodizing (deprecated)

anodizing aluminium coils in a continuous process comprising unwinding, passing through a succession of processes including anodizing, and rewinding

Note 1 to entry: The term “continuous anodizing” is deprecated in this usage because it can also be applied to a method of anodizing extrusions.

#### 2.1.7

##### **colour-anodized aluminium**

anodized aluminium coloured either during anodizing or by a subsequent colouring process or processes

#### 2.1.8

##### **combination-coloured anodized aluminium**

anodized aluminium coloured by electrolytic colouring or produced by integral colour anodizing either followed by absorption dyeing