



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS H 8683-2 : 2013

(JAPA/JSA)

**Anodizing of aluminium and its alloys —
Assessment of quality of sealed anodic
oxidation coatings — Part 2: Measure-
ment of the loss of mass after immersion
in phosphoric acid/chromic acid solution**

ICS 25.220.20;77.120.10

Reference number : JIS H 8683-2 : 2013 (E)

PROTECTED BY COPYRIGHT

 **Documents**
Document Sharing Hub
8 5

Date of Establishment: 1999-08-20

Date of Revision: 2013-05-20

Date of Public Notice in Official Gazette: 2013-05-20

Investigated by: Japanese Industrial Standards Committee

Standards Board

Technical Committee on Non-Ferrous Metals

JIS H 8683-2 : 2013, First English edition published in 2015-03

Translated and published by: Japanese Standards Association
Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

© JSA 2015

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

KK/HN

Contents

	Page
Introduction	1
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
4 Summary	2
5 Test solutions	2
6 Apparatus and instruments	2
7 Test specimen	3
8 Procedure	3
8.1 Method 1	3
8.2 Method 2	4
9 Expression of test results	5
10 Test report	5
Annex A (normative) Drying method of test specimen	6
Annex JA (informative) Comparison table between JIS and corresponding International Standard	7

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Aluminium Products Association (JAPA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently, **JIS H 8683-2: 1999** is replaced with this Standard.

This **JIS** document is protected by the Copyright Law.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

JIS H 8683 series consists of the following 3 parts.

JIS H 8683-1 *Anodizing of aluminium and its alloys — Estimation of loss of absorptive power of anodic oxidation coatings after sealing — Part 1: Dye-spot test with prior acid treatment*

JIS H 8683-2 *Anodizing of aluminium and its alloys — Assessment of quality of sealed anodic oxidation coatings — Part 2: Measurement of the loss of mass after immersion in phosphoric acid/chromic acid solution*

JIS H 8683-3 *Anodizing of aluminium and its alloys — Assessment of quality of sealed anodic oxidation coatings — Part 3: Measurement of admittance*

Anodizing of aluminium and its alloys — Assessment of quality of sealed anodic oxidation coatings — Part 2 : Measurement of the loss of mass after immersion in phosphoric acid/chromic acid solution

Introduction

This Japanese Industrial Standard has been prepared based on the third edition of ISO 3210 published in 2010 with some modifications of the technical contents.

The portions given sidelines or dotted underlines are the matters in which the contents of the corresponding International Standard have been modified. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies the testing method of sealing by the chromic-phosphoric solution immersion test on anodic oxidation coatings (hereafter referred to as “coatings”) applied to the products manufactured from aluminium and aluminium alloys (hereafter referred to as “products”).

This Standard includes the following two testing methods.

- Method 1 : The method without prior acid treatment applicable to the coatings intended for decorative or protective purpose. For less severe applications, this method may be suitable.
- Method 2 : The method with prior acid treatment applicable to the coatings intended for architectural purpose or the like.

These methods are not applicable to the following.

- a) Hard-type coatings to which sealing treatment is not applied
- b) Coatings sealed with dichromate
- c) Chromic acid coatings
- d) Coatings to which hydrophobic treatment is applied

NOTE 1 The methods are destructive and can serve as reference methods in case of doubt or dispute regarding the results of the test for loss of absorptive power (JIS H 8683-1) or the measurement of admittance (JIS H 8683-3).

NOTE 2 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows:

ISO 3210 : 2010 *Anodizing of aluminium and its alloys — Assessment of quality of sealed anodic oxidation coatings by measurement of the loss of mass after immersion in phosphoric acid/chromic acid solution* (MOD)

The symbols which denote the degree of correspondence in the con-