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Test methods for corrosion resistance of anodic oxide coatings on aluminium and aluminium alloys— Part 2 : CASS test

ICS 25.220.20; 77.060

Descriptors : aluminium, aluminium alloys, anodic coating, endurance testing,
accelerated corrosion tests, corrosion, anodizing, protective coatings,
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H 8681-2 : 1999

Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently, **JIS H 8681 : 1988** has been withdrawn. CASS test method specified in **JIS H 8681 : 1988** is replaced with **JIS H 8681-2 : 1999**.

This revision is made the following standards that (1) Alkali resistance test and (2) CASS test which had been specified in **JIS H 8681** withdrawn, are contained independently, in order to compare and conform Japanese Industrial Standard with International Standard, and make facilitate to propose the draft of International Standard based on Japanese Industrial Standard.

JIS H 8681-1 *Test methods for corrosion resistance of anodic oxide coatings on aluminium and aluminium alloys—Part 1 : Alkali resistance test*

JIS H 8681-2 *Test methods for corrosion resistance of anodic oxide coatings on aluminium and aluminium alloys—Part 2 : CASS test*

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the original JIS is to be the final authority.

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Test methods for corrosion resistance of anodic oxide coatings on aluminium and aluminium alloys— Part 2 : CASS test

Introduction This Japanese Industrial Standard has been prepared based on the first edition of ISO 9227 *Corrosion tests in artificial atmospheres—Salt spray tests*, published in 1990, on the corresponding parts (CASS test method) in the International Standard without any modification of technical contents. However, the items (Definition and Summary) not specified in the corresponding International Standard have been additionally contained herein as the Japanese Industrial Standard.

The portions underlined with dots are the matters not included in the original International Standard.

1 Scope This Japanese Industrial Standard specifies the corrosion resistance test method by CASS test for anodic oxide coatings (hereafter referred to as “coating”) on the products of aluminium and aluminium alloys (hereafter referred to as “products”).

Remarks : The corresponding International Standard to this Standard is shown as follows.

ISO 9227 *Corrosion tests in artificial atmospheres—Salt spray tests*

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards indicated below shall be applied.

JIS H 0201 *Glossary of terms used in the surface treatment of aluminium*

JIS H 8679-1 *Evaluation methods for pitting corrosion of anodic oxide coatings on aluminium and aluminium alloys—Part 1 : Chart method*

JIS K 8145 *Copper (II) chloride dihydrate*

JIS K 8150 *Sodium chloride*

JIS K 8180 *Hydrochloric acid*

JIS K 8355 *Acetic acid*

3 Definitions For the purpose of this Standard, the definitions given in JIS H 0201 apply.

4 Summary This is a method for assessment of the corrosion resistance of a coating by the degree of corrosion generated when the salt solution acidified by acetic acid containing copper salt is sprayed on a specimen for the specified time using a CASS test equipment.

5 Apparatus For the apparatus, spray nozzles, a storage tank of salt solution, specimen holders, and collecting device for spraying solution, etc. shall be equipped. The apparatus consists of a test cabinet in which the constant temperature and humidity can be maintained, a feed tank of the salt solution, compressed air feeder and exhauster,