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INDUSTRIAL
STANDARD

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JIS H 8681-1 : 1999

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

ICS 25.220.20; 77.060

Descriptors : aluminium, aluminium alloys, anodic coating, endurance testing,
corrosion tests, corrosion, alkali-resistance tests, anodizing, oxidation
methods, protective coatings

Reference number : JIS H 8681-1 : 1999 (E)

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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 Consequently, **JIS H 8681 : 1988** has been withdrawn. Alkali resistance test in **JIS H 8681 : 1988** is replaced with **JIS H 8681-1 : 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the following standards that (1) Alkali resistance test and (2) CASS test which had been specified in **JIS H 8681** withdrawn, are contained independently, in order to compare and conform Japanese Industrial Standard with International Standard, and make facilitate to propose the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 1 : Alkali resistance test

1 Scope This Japanese Industrial Standard specifies the corrosion resistance test method by the alkali resistance test for anodic oxide coatings on the product of aluminium and aluminium alloys.

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 C 1202 *Circuit tests*

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

JIS K 8576 *Sodium hydroxide*

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

4 Types of test Types of test are as follows.

- a) Alkali spot test Ks
- b) Alkali resistance test by electromotive force Kc

5 Alkali spot test

5.1 Summary This is a method for evaluating the alkali corrosion resistance of a specimen by measuring time required until the coating is dissolved with sodium hydroxide solution on a specimen in an alkali spot test equipment.

5.2 Equipment and instrument In an alkali spot test equipment, a thermostat with dropping equipment of constant volume test solution, a specimen movable carriage, a storage tank of test solution shall be installed and the specimen shall be taken out easily. Instruments shall be employed a glass bar thermometer, rinsing water tank and a circuit tester and satisfied the requirements given in Table 1. An example of a probe using in circuit testers is shown in Fig. 1.