JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS G 0597 : 2017

Accelerated cyclic corrosion tests with dry and wet conditions at constant absolute humidity for stainless steels

ICS 77.060

Reference number : JIS G 0597 : 2017 (E)

Date of Establishment: 2017-11-20
Date of Public Notice in Official Gazette: 2017-11-20
Investigated by: Japanese Industrial Standards Committee
Standards Board for ISO area
Technical Committee on Metal and Inorganic Materials

JIS G 0597:2017, First English edition published in 2018-03

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.

Printed in Japan

HT/AT

Contents

Page

Foreword

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization 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.

Accelerated cyclic corrosion tests with dry and wet conditions at constant absolute humidity for stainless steels

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 16539**:2013, Edition 1, with some modifications of the technical contents to reflect the local needs and situations in Japan.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JB.

1 Scope

This Standard specifies the accelerated corrosion test procedures for the evaluation of corrosion behaviour of stainless steels in atmospheric environments. It also specifies the apparatus used. The tests involve salt deposition and dry/wet conditions at a constant absolute humidity[1)].

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

ISO 16539:2013 *Corrosion of metals and alloys—Accelerated cyclic corrosion tests with exposure to synthetic ocean water salt-deposition process—"Dry" and "wet" conditions at constant absolute humidity* (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

Note [1)] Absolute humidity is expressed by the mass (g) of vapour contained per air volume of 1 m^3.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this Standard. The most recent edition of the standard (including amendments) indicated below shall be applied.

JIS G 0595 *Rating method of rust and stain of atmospheric corrosion for stainless steels*

3 Test solution

3.1 Mixed salt solution

For the tests specified in this Standard, commercial synthetic ocean water, or the substitute ocean water specified in Annex JA or the mixed salt solution specified in **3.2** below shall be used.