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**Mechanical properties of corrosion-
resistant stainless steel fasteners—
Part 2: Nuts**

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

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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 The Japan Research Institute for Screw Threads and Fasteners (JFRI)/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 B 1054-2**:2001 is replaced with this Standard.

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JIS B 1054 series consists of the following 4 parts under the general title “*Mechanical properties of corrosion-resistant stainless steel fasteners*”:

Part 1: Bolts, screws and studs

Part 2: Nuts

Part 3: Set screws and similar fasteners not under tensile stress

Part 4: Tapping screws

Mechanical properties of corrosion-resistant stainless steel fasteners— Part 2: Nuts

Introduction

This Japanese Industrial Standard has been prepared based on the second edition of **ISO 3506-2** published in 2009 without any modifications of the technical contents.

Annex JA in this Standard is not contained in the corresponding International Standard.

1 Scope

This Standard specifies the mechanical properties of nuts made of austenitic, martensitic and ferritic steel grades of corrosion-resistant stainless steels, when tested over an ambient temperature range of 10 °C to 35 °C. Properties vary at higher or lower temperatures.

This Standard applies to nuts:

- with nominal thread diameter $D \leq 39$ mm;
- of **ISO** general purpose metric threads based on **JIS B 0205-1** with diameters and pitches in accordance with **JIS B 0205-2** and **JIS B 0205-3**;
- of any shape;
- with width across flats as specified in **JIS B 1002** (except for those shaded);
- with nominal heights $m \geq 0.5D$.

It does not apply to nuts requiring properties such as

- locking abilities, and
- weldability.

NOTE : The designation system of this Standard can be used for sizes outside the limits given in this clause (e.g. $D > 39$ mm), provided that all applicable mechanical and physical requirements of the property classes are met.

This Standard does not define corrosion or oxidation resistance in particular environments. However, some information on materials for particular environments is given in Annex D. Regarding definitions of corrosion and corrosion resistance, see **ISO 8044**.

The aim of this Standard is the classification of corrosion-resistant stainless steel nuts into property classes. Some materials can be used at temperatures down to -200 °C, some can be used at temperatures up to +800 °C in air. Information on the influence of temperature on mechanical properties is found in Annex E.

Corrosion and oxidation performances and mechanical properties for use at elevated or sub-zero temperatures can be agreed on between the user and the manufacturer in each particular case. Annex F shows how the risk of intergranular corrosion at elevated temperatures depends on the carbon content.