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### (JFRI/JSA)

# Fasteners—Prevailing torque steel nuts—Functional properties

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#### Foreword

This Japanese Industrial Standard has been 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 a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS B 1056**: 2011), which has been technically revised.

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#### Fasteners—Prevailing torque steel nuts— Functional properties

#### Introduction

This Japanese Industrial Standard has been prepared based on **ISO 2320**:2015, Edition 5, with some modifications of the technical contents, providing requirements that reflect the use of the product in Japan.

The dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA.

#### 1 Scope

This Standard specifies the functional properties for prevailing torque steel nuts when tested at an ambient temperature range of +10  $^{\circ}$ C to +35  $^{\circ}$ C.

It includes a combined test method to determine the prevailing torque properties and the coefficient of total friction as the torque/clamp force properties at the same time.

It applies to prevailing torque all metal type nuts and prevailing torque non-metallic insert type nuts (hereafter referred to as nuts):

- with triangular **ISO** thread in accordance with **JIS B 0205-1**;
- with diameter/pitch combination in accordance with **JIS B 0205-3**;
- with coarse pitch thread M5 to M39 or with fine pitch thread M8  $\times$  1 to M39  $\times$  3;
- with thread tolerances in accordance with **JIS B 0209-2**;
- with mechanical properties in accordance with **JIS B 1052-2**.

Prevailing torque values specified in this Standard are based on laboratory test conditions.

- NOTE 1 Actual prevailing torques in practical application can vary.
- NOTE 2 Prevailing torque all metal type nuts conforming to the requirements of this Standard are used in applications ranging from -50 °C to +150 °C.
- NOTE 3 Prevailing torque non-metallic insert type nuts conforming to the requirements of this Standard are used in applications ranging from -50 °C to +120 °C. At the temperature outside this range, the capability of functional properties (torque and clamp force, and prevailing torque properties) may be reduced (see Annex A).
- NOTE 4 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 2320:2015 Fasteners—Prevailing torque steel nuts—Functional properties (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**.