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**Alloy steel bars for special application
bolting materials**

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Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry based on the provision of Article 14, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act in response to a proposal for revision of Japanese Industrial Standard with a draft being attached, submitted by The Japan Iron and Steel Federation (JISF), an accredited standards development organization. This edition replaces the previous edition (**JIS G 4108** : 2010), which has been technically revised.

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Alloy steel bars for special application bolting materials

1 Scope

This Japanese Industrial Standard specifies the requirements for alloy steel bars to be used for bolts, stud bolts, washers, nuts, etc. for nuclear reactors and other special applications (hereafter referred to as steel bars).

2 Normative references

Part or all of the provisions of the following standards, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

- JIS G 0201 *Glossary of terms used in iron and steel (Heat treatment)*
- JIS G 0202 *Glossary of terms used in iron and steel (Testing)*
- JIS G 0203 *Glossary of terms used in iron and steel (Products and quality)*
- JIS G 0320 *Standard test method for heat analysis of steel products*
- JIS G 0321 *Product analysis and its tolerance for wrought steel*
- JIS G 0404 *Steel and steel products — General technical delivery requirements*
- JIS G 0415 *Steel and steel products — Inspection documents*
- JIS G 3191 *Dimensions, mass, shape and permissible variations of hot rolled steel bars and bar in coil*
- JIS Z 2241 *Metallic materials — Tensile testing — Method of test at room temperature*
- JIS Z 2242 *Method for Charpy pendulum impact test of metallic materials*
- JIS Z 2243-1 *Brinell hardness test — Part 1 : Test method*

3 Terms and definitions

For the purpose of this Standard, the following terms and definitions, and those given in JIS G 0201, JIS G 0202 and JIS G 0203 apply.

3.1

steel bar

steel product manufactured by hot rolling a steel into bar shape

Note 1 to entry A steel bar is manufactured with a round (3.2), square (3.3) or hexagonal (3.4) cross-section.

Note 2 to entry A steel bar includes a bar in coil (3.5).

Note 3 to entry This Standard covers the hot forged steel bars, and those sub-