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Magnesium alloy bars

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In the event of any doubts arising as to the contents,
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Contents

		Page
	Introduction	1
1	Scope	1
2	Normative references	1
3	Term and definition	2
4	Classification and symbol	2
5	Quality	3
5.1	Appearance	3
5.2	Chemical composition	3
5.3	Mechanical properties	4
6	Dimensions and tolerances	5
6.1	Length of bars	5
6.2	Tolerances on dimensions	5
7	Tests	5
7.1	Chemical analysis test	5
7.2	Tensile test	6
8	Inspection	6
9	Marking	6
Annex JA (informative)	Comparison table between JIS and corresponding International Standards	7

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 Magnesium Association (JMA)/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 H 4203 : 2005** is replaced with this Standard.

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Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public or utility model right. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public or utility model right.

Magnesium alloy bars

Introduction

This Japanese Industrial Standard has been prepared based on the fourth edition of **ISO 3116** published in 2007 and the first edition of **ISO 7773** published in 1983 with some modifications of the technical contents.

The portions dotted underlines are the matters in which the contents of the corresponding International Standards have been modified. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies the magnesium alloy bars with a circular, rectangular, square, regular hexagonal or regular octagonal cross section manufactured by extrusion (hereafter referred to as "bars").

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

ISO 3116 : 2007 *Magnesium and magnesium alloys — Wrought magnesium alloys*

ISO 7773 : 1983 *Magnesium alloys — Round bars and tubes — Dimensional tolerances* (Overall evaluation : MOD)

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

2 Normative references

The following standards contain provisions which, 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 H 0001 Aluminium, magnesium and their alloys — Temper designation

JIS H 0321 General rules for inspection of non-ferrous metal materials

JIS H 1332 Methods for determination of aluminium in magnesium and magnesium alloys

JIS H 1333 Methods for determination of zinc in magnesium and magnesium alloys

JIS H 1334 Methods for determination of manganese in magnesium and magnesium alloys

JIS H 1335 Methods for determination of silicon in magnesium and magnesium alloys

JIS H 1336 *Methods for determination of copper in magnesium and magnesium alloys*

JIS H 1337 *Method for determination of nickel in magnesium and magnesium alloys*

JIS H 1338 *Methods for determination of iron in magnesium and magnesium alloys*

JIS H 1340 *Method for determination of zirconium in magnesium alloys*

JIS H 1341 *Method for determination of calcium in magnesium alloys*

JIS H 1345 *Method for determination of rare earths in magnesium alloys*

JIS Z 2241 *Metallic materials — Tensile testing — Method of test at room temperature*

NOTE : Corresponding International Standard : ISO 6892-1 *Metallic materials — Tensile testing — Part 1 : Method of test at room temperature* (MOD)

3 Term and definition

For the purposes of this Standard, the following term and definition apply.

3.1 bar

an internally dense wrought product which has a uniform cross section over the whole length, and is supplied in a rectilinear shape

The cross section shall be circular, square, rectangular, regular hexagonal or regular octagonal. The rectangular bar refers to one having the thickness exceeding 1/10 the width.

4 Classification and symbol

The classification and symbol shall be as given in table 1.

Table 1 Classification and symbol

Classification	Symbol	Corresponding symbol of ISO
Class 1 B	MB1B	ISO-MgAl3Zn1(A)
Class 1 C	MB1C	ISO-MgAl3Zn1(B)
Class 2	MB2	ISO-MgAl6Zn1
Class 3	MB3	ISO-MgAl8Zn
Class 5	MB5	ISO-MgZn3Zr
Class 6	MB6	ISO-MgZn6Zr
Class 8	MB8	ISO-MgMn2
Class 9	MB9	ISO-MgZn2Mn1
Class 10	MB10	ISO-MgZn7Cu1
Class 11	MB11	ISO-MgY5RE4Zr
Class 12	MB12	ISO-MgY4RE3Zr
The temper designation of table 3 shall be attached to the symbol above with a hyphen "-". Example : MB1B-F		