
**Magnesium and magnesium alloys —
Unalloyed magnesium — Chemical
composition**

*Magnésium et alliages de magnésium — Magnésium non allié —
Composition chimique*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO 8287:2000](https://standards.iteh.ai/catalog/standards/sist/a2c8c7c4-8366-41c5-b438-ab89d6083eaf/iso-8287-2000)

[https://standards.iteh.ai/catalog/standards/sist/a2c8c7c4-8366-41c5-b438-
ab89d6083eaf/iso-8287-2000](https://standards.iteh.ai/catalog/standards/sist/a2c8c7c4-8366-41c5-b438-ab89d6083eaf/iso-8287-2000)



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 8287:2000

<https://standards.iteh.ai/catalog/standards/sist/a2c8c7c4-8366-41c5-b438-ab89d6083eaf/iso-8287-2000>

© ISO 2000

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 734 10 79
E-mail copyright@iso.ch
Web www.iso.ch

Printed in Switzerland

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 8287 was prepared by Technical Committee ISO/TC 79, *Light metals and their alloys*, Subcommittee SC 5, *Magnesium and alloys of cast or wrought magnesium*.

This second edition cancels and replaces the first edition (ISO 8287:1984), which has been technically revised.

ITEH STANDARD PREVIEW
(standards.iteh.ai)

[ISO 8287:2000](https://standards.iteh.ai/catalog/standards/sist/a2c8c7c4-8366-41c5-b438-ab89d6083eaf/iso-8287-2000)

<https://standards.iteh.ai/catalog/standards/sist/a2c8c7c4-8366-41c5-b438-ab89d6083eaf/iso-8287-2000>

Introduction

This International Standard classifies commercially available cast unalloyed magnesium into a number of grades suitable for the applications to which they might be put. The grades listed in this International Standard are identical to those in EN 12421:1998, *Magnesium and magnesium alloys — Unalloyed magnesium*.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO 8287:2000](https://standards.iteh.ai/catalog/standards/sist/a2c8c7c4-8366-41c5-b438-ab89d6083eaf/iso-8287-2000)

<https://standards.iteh.ai/catalog/standards/sist/a2c8c7c4-8366-41c5-b438-ab89d6083eaf/iso-8287-2000>

Magnesium and magnesium alloys — Unalloyed magnesium — Chemical composition

1 Scope

This International Standard specifies the chemical composition of cast unalloyed magnesium. It specifies classification, designation and marking.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 31-0:1992, *Quantities and units — Part 0: General principles*.

ISO 2092:1981, *Light metals and their alloys — Code of designation based on chemical symbols*.

<https://standards.iteh.ai/catalog/standards/sist/a2c8c7c4-8366-41c5-b438-ab89d6083eaf/iso-8287-2000>

3 Terms and definitions

For the purposes of this International Standard, the following terms and definitions apply.

3.1

unalloyed magnesium

magnesium with a minimum purity of 99,0 % by mass

3.2

cast unalloyed magnesium

unalloyed magnesium cast in a variety of shapes

4 Information to be supplied by the purchaser

The enquiry and order shall define the product required and shall contain the following information:

- a) material designation;
- b) product shape;
- c) quantity (for example number, mass, etc.);
- d) any requirements for declarations of conformity;
- e) any additional requirements agreed between the manufacturer and the purchaser.

5 Designation

The material shall be designated by the appropriate symbols given in Table 1.

6 Manufacture

The manufacturing process shall be left to the discretion of the manufacturer unless otherwise agreed at the time of ordering.

NOTE The manufacturing process covers all operations up to the delivery of the product.

7 Chemical composition

The chemical composition of cast unalloyed magnesium shall conform to the requirements for the appropriate material given in Table 1.

Unless otherwise specified in the enquiry and order, the chemical composition of the cast unalloyed magnesium shall relate to that of samples taken from the melt at the time of pouring.

8 General condition of the product

The product shall have a clean surface in accordance with the agreement between the manufacturer and the purchaser, and shall be free from visible and internal defects to a level also agreed between the manufacturer and the purchaser.

ITeH STANDARD PREVIEW
(standards.iteh.ai)

[ISO 8287:2000](https://standards.iteh.ai/catalog/standards/sist/a2c8c7c4-8366-41c5-b438-ab89d6083eaf/iso-8287-2000)

9 Testing

<https://standards.iteh.ai/catalog/standards/sist/a2c8c7c4-8366-41c5-b438-ab89d6083eaf/iso-8287-2000>

Analysis to ensure conformity with the chemical composition requirements given in Table 1 shall be carried out on samples taken by the manufacturer and representative of the material delivered.

10 Rounding of results

In recording the results of the chemical analysis, the result obtained for any property specified in this International Standard shall be expressed to the same number of decimal places as the corresponding value in this International Standard. Rounding shall be carried out as specified in ISO 31-0:1992, annex B, clauses B.2 and B.3. In clause B.3, it is left to the discretion of the manufacturer as to whether to use rule A or B, unless the use of one of the rules has been agreed at the time of acceptance of the order.

11 Declaration of conformity and inspection documents

If agreed between the manufacturer and the purchaser or when specified on the order, the manufacturer shall provide a declaration of product conformity or an inspection document listing the results of the analysis of the chemical elements given in Table 1, and of any other element which may have been previously agreed.

Table 1 — Chemical composition of cast unalloyed magnesium

Material designation		Chemical composition % by mass													
In accordance with ISO 2092	In accordance with EN 12421	min. or max.	Al	Mn	Si	Fe	Cu	Ni	Pb	Sn	Na	Ca	Zn	Others (each)	Mg ^a
ISO Mg 99,5	EN-MB10010	min. max.	— 0,1	— 0,1	— 0,1	— 0,1	— 0,1	— 0,01	— —	— —	— 0,01	— 0,01	— —	— 0,05	99,5 —
ISO Mg 99,80A	EN-MB10020	min. max.	— 0,05	— 0,05	— 0,05	— 0,05	— 0,02	— 0,001	— 0,01	— 0,01	— 0,003	— 0,003	— 0,05	— 0,05	99,80 —
ISO Mg 99,80B	EN-MB10021	min. max.	— 0,05	— 0,05	— 0,05	— 0,05	— 0,02	— 0,002	— 0,01	— 0,01	— —	— —	— 0,05	— 0,05	99,80 —
ISO Mg 99,95A	EN-MB10030	min. max.	— 0,01	— 0,006	— 0,006	— 0,003	— 0,005	— 0,001	— 0,005	— 0,005	— 0,003	— 0,003	— 0,005	— 0,005	99,95 —
ISO Mg 99,95B	EN-MB10031	min. max.	— 0,01	— 0,01	— 0,01	— 0,005	— 0,005	— 0,001	— 0,005	— 0,005	— —	— —	— 0,01	— 0,005	99,95 —

^a By difference

12 Marking

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Unless otherwise agreed, each product, or bundle of products, shall be clearly marked with the following:

- manufacturer's identification;
- material designation;
- melt identification;
- mass of product or bundle of products.

ISO 8287:2000

— material designation; <https://standards.iteh.ai/catalog/standards/sist/a2c8c7c4-8366-41c5-b438-ab89d6083eaf/iso-8287-2000>

The method of marking is left to the discretion of the manufacturer. Markings shall be indelible and shall not be a source of contamination.

13 Complaints

In the event of any product complaint, the manufacturer shall examine the validity of the complaint within a reasonable time.

Complaints may only be raised against defective products if the defect impairs their processing and use to a more than negligible extent. This shall apply unless otherwise agreed at the time of acceptance of the order.

The purchaser shall give the manufacturer the opportunity to judge whether the complaints are justified.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 8287:2000

<https://standards.iteh.ai/catalog/standards/sist/a2c8c7c4-8366-41c5-b438-ab89d6083eaf/iso-8287-2000>

ICS 77.120.20

Price based on 3 pages