

This document is a preview generated by EVS

Magnesium and magnesium alloys - Unalloyed
magnesium

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 12421:2017 sisaldab Euroopa standardi EN 12421:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 12421:2017 consists of the English text of the European standard EN 12421:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 08.03.2017.	Date of Availability of the European standard is 08.03.2017.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 77.120.20

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:

Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

Magnesium and magnesium alloys - Unalloyed magnesium

Magnésium et alliages de magnésium - Magnésium non allié

Magnesium und Magnesiumlegierungen - Reinmagnesium

This European Standard was approved by CEN on 6 January 2017.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

European foreword.....	3
Introduction	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions.....	5
4 Designations.....	5
5 Order information	5
6 Manufacture	6
7 Requirements.....	6
7.1 Chemical composition	6
7.2 General condition of the product	6
8 Sampling.....	6
8.1 General.....	6
8.2 Frequency and number of tests	6
9 Testing.....	6
9.1 Determination of the chemical composition.....	6
9.2 Rounding of results of chemical analysis	6
10 Inspection documentation.....	8
11 Marking.....	8
12 Packaging and surface protection.....	8
13 Complaints.....	8
Annex A (informative) Comparison of cast unalloyed magnesium material designations according to EN 12421 and ISO 8287 [3]	9
Annex B (informative) Significant technical changes between this European Standard and the previous edition	10
Bibliography.....	11

European foreword

This document (EN 12421:2017) has been prepared by Technical Committee CEN/TC 190 “Foundry Technology”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2017, and conflicting national standards shall be withdrawn at the latest by September 2017.

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

This document supersedes EN 12421:1998.

Within its programme of work, Technical Committee CEN/TC 190 requested CEN/TC 190/WG 9 “Cast magnesium” to revise:

EN 12421:1998, *Magnesium and magnesium alloys — Unalloyed magnesium*

Annex B provides details of significant technical changes between this European Standard and the previous edition.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard classifies cast unalloyed magnesium into a number of grades suitable for the applications for which they might be used.

Four new grades of cast unalloyed magnesium, as specified in ISO 8287:2011 [3], has been added.

In this European Standard a new designation system by number, as established in EN 1754 [1], is given.

NOTE This designation system by number is based on the structure and rules of EN 10027-2 [2] and so corresponds with the European numbering system for steel and other materials.

1 Scope

This European Standard specifies the grades and corresponding requirements for cast unalloyed magnesium.

This European Standard specifies the chemical composition, designation, testing, marking and inspection documentation.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10204, *Metallic products - Types of inspection documents*

EN ISO 80000-1:2013, *Quantities and units - Part 1: General (ISO 80000-1:2009 + Cor 1:2011)*

3 Terms and definitions

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

3.1

unalloyed magnesium

material where the minimum magnesium content is 99,0 % (mass fraction)

3.2

cast unalloyed magnesium

unalloyed magnesium processed in various moulds

4 Designations

The material shall be designated either by symbol or by number, as given in Table 1.

NOTE The comparison of EN 12421 grade designations with the designations from the ISO standard for unalloyed magnesium, ISO 8287 [3], is given in Annex A.

5 Order information

The following information shall be supplied by the purchaser:

- a) the number of this European Standard;
- b) the designation of the material;
- c) product shape;
- d) quantity (e.g. number, mass, etc.);
- e) any special requirements.

All requirements shall be agreed between the manufacturer and the purchaser by the time of acceptance of the order.