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Evaluation method for cleanliness of magnesium and magnesium alloy ingots

Méthode d'évaluation de la propreté des lingots en magnésium et en alliages de magnésium

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Contents

Page

Foreword ..... **iv**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Naked eye inspection **1**
5 Chemical composition analysis **1**
6 Brightness evaluation **2**
6.1 Principle of brightness evaluation 2
6.2 Specimen preparation 2
6.3 Shape of jig 3
6.4 Brightness evaluation of the fracture surface 4
6.5 Others 5
7 Test report **5**
Bibliography **6**

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Foreword

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The committee responsible for this document is ISO/TC 79, *Light metals and their alloys*, Subcommittee SC 5, *Magnesium and alloys of cast or wrought magnesium*.

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Evaluation method for cleanliness of magnesium and magnesium alloy ingots

1 Scope

This document describes a method to evaluate the cleanliness and the quality of magnesium and magnesium alloys ingots.

The method includes naked eye inspection, the composition analysis and a brightness evaluation procedure based on an ISO standard.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2470-1, *Paper, board and pulps — Measurement of diffuse blue reflectance factor — Part 1: Indoor daylight conditions (ISO brightness)*

ISO 3116, *Magnesium and magnesium alloys — Wrought magnesium alloys*

ISO 8287, *Magnesium and magnesium alloys — Unalloyed magnesium — Chemical composition*

ISO 16220, *Magnesium and magnesium alloys — Magnesium alloy ingots and castings*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

4 Naked eye inspection

Identify any presence of significant contraction or impurities on the surface of magnesium ingots. The decision on the quality of ingots by naked eye inspection should be agreed between the supplier and the purchaser.

5 Chemical composition analysis

Analyse the content of alloying elements of ingots. The chemical composition methods can be selected by agreement between the supplier and the purchaser and shall be mentioned in the testing report. The chemical composition of magnesium and magnesium alloys is specified in ISO 8287, ISO 16220 and ISO 3116. The range of the composition of unspecified alloys or alloying elements can be determined by an agreement between the supplier and the purchaser.

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