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Magnesium and Magnesium Alloys Sheets and Strips

镁及镁合金板、带材

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Magnesium and Magnesium Alloys Sheets and Strips

1 Scope

This Document specifies the classification, requirements, test methods, inspection rules and marking, packaging, transportation, storage and quality certificates and purchase orders (or contracts) of magnesium and magnesium alloy sheets and strips.

This Document applies to magnesium and magnesium alloy sheets (hereinafter referred to as sheets) and strips (hereinafter referred to as strips).

2 Normative References

The provisions in following documents become the essential provisions of this Document through reference in this Document. For the dated documents, only the versions with the dates indicated are applicable to this Document; for the undated documents, only the latest version (including all the amendments) is applicable to this Document.

GB/T 3499 Magnesium Ingots

GB/T 5153 Designation and Composition of Wrought Magnesium and Magnesium Alloys

GB/T 7314 Metallic Materials - Compression Testing at Ambient Temperature

GB/T 8005.1 Aluminum and Aluminum Alloy Terms and Definitions - Part 1: Product and Method of Processing and Treatment

GB/T 8170 Rules of Rounding off for Numerical Values & Expression and Judgement of Limiting Values

GB/T 13748 (all parts) Chemical Analysis Methods of Magnesium and Magnesium Alloys

GB/T 16865 Test Pieces and Method for Tensile Test for Wrought Aluminum and Magnesium Alloys Products

GB/T 17432 Methods for Sampling for Analyzing the Chemical Composition of Wrought Aluminum and Aluminum Alloys

GB/T 26492.3 Defects for Wrought Aluminum and Aluminum Alloys Ingots and Products - Part 3: Defects for Plates, Sheets and Strips

GB/T 32792 Packaging, Marking, Transportation and Storage of Magnesium Alloy Processing Products

6.1.3 The chemical composition sampling of sheets and strips shall comply with the provisions of GB/T 17432.

6.1.4 The determination of the analytical value shall adopt the rounding-off comparison method. The rounding-off rules of numerical values shall be carried out according to the relevant provisions of GB/T 8170. The rounding-off digits shall be consistent with the limit digits specified in GB/T 3499, GB/T 5153 and Table 2.

6.2 Dimensional deviation

6.2.1 The thickness is measured with a micrometer with an accuracy of 0.01mm or a measuring tool with the same accuracy. The sheets shall be measured within a range of no less than 115mm from the long-sided sheet corner and no less than 20mm from the edge of the sheet; the strip shall be measured thickness in the middle of the end.

6.2.2 The length and width shall be measured by a steel tape with an accuracy of 1mm or a measuring tool with the same accuracy.

6.2.3 When measuring the unevenness, the sheet shall be placed freely on the platform; and the gap between the sheet and the platform shall be measured. When there are several waves in a sheet, the height of the largest wave shall be measured. Edge waves can be measured with measuring tools such as feeler gauges, etc.

6.2.4 Dimensional measurements shall not be rounded-off.

6.3 Mechanical properties

6.3.1 The tensile test of sheet at the room temperature shall be carried out according to the method specified in GB/T 16865.

6.3.2 The compression test of sheet at the room temperature shall be carried out according to the method specified in GB/T 7314.

6.4 Appearance quality

In natural scattered light, check the appearance quality visually or using a measuring tool.

7 Inspection Rules

7.1 Inspection and acceptance

7.1.1 The sheets and strips shall be inspected by the technical supervision department of the supplier to ensure that the product quality conforms to the provisions of this Document and the purchase order (or contract); and the quality certificate shall be filled out.

7.1.2 The purchaser shall inspect the received products according to the provisions of this

7.5.4 When the appearance quality of the product is unqualified, it shall be judged as unqualified.

8 Marking, Packaging, Transportation, Storage and Quality Certificate

8.1 Marking

8.1.1 Product marking

The sheets and strips that are inspected qualified shall be marked, which shall indicate:

- a) Designation;
- b) State;
- c) Specification;
- d) Batch No. (sheet No.).

8.1.2 Marking of package box

There shall be marks on the two ends of the package box, which shall indicate:

- a) Name of supplier;
- b) Designation;
- c) State;
- d) Specification;
- e) Batch No. and net weight;
- f) The No. of this Document.

8.2 Packaging

8.2.1 The sheets are packed in wooden boxes; and the boxes shall be dry. Two layers of oil-impregnated paper shall be placed on the top and bottom of the sheet stack in the box; the entire sheet stack shall be wrapped with plastic cloth or moisture-proof paper; and the sheet shall not be exposed.

8.2.2 The packaging of the sheet shall be carried out in accordance with the provisions of GB/T 32792.

8.2.3 There shall be a packing list in each box, which shall indicate:

- a) the name of the supplier;
- b) designation;
- c) state;
- d) specification and batch No.;
- e) quantity and net weight;
- f) the No. of this Document;
- g) date of packaging.

8.3 Transportation and storage

8.3.1 The transported goods of the product shall be clean, dry and free of pollutants; rain and snow protection shall be carried out during transportation to ensure that the packing box is not corroded. It shall not be packed together with chemically active substances, moist materials and flammable materials in the same vehicle for transportation; appropriate loading and unloading methods shall be adopted to prevent damage to the packing box (substance).

8.3.2 After the purchaser receives the product, it shall be kept in a clean, dry, non-corrosive atmosphere, no rain and snow intrusion, no chemically active substances, no moisture materials or no flammable materials in the warehouse. The product shall be inspected for corrosion within 10 days and the acceptance shall be organized. Sheets that have been stored for a long time shall be regularly treated with anti-corrosion.

8.4 Quality certificate

Each batch of products shall be accompanied by a product quality certificate, which shall indicate:

- a) the name of the supplier;
- b) product name;
- c) designation;
- d) state;
- e) net weight;
- f) Specifications;
- g) batch number;

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