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YS

**NONFERROUS METALS INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

YS/T 439-2012

Replacing YS/T 439-2001

**Wrought aluminium and aluminium alloy extruded rectangular
bars, plates and sheets**

铝及铝合金挤压扁棒及板

(English Translation)

Issued on: January 1, 1970

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Issued by: Ministry of Industry and Information Technology

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

Instead of the standard YS/T 439-2001 "aluminum and aluminum alloy extruded flat stick" compared with YS/T 439-2001, the main technical change as follows.

--- Increased alloy classification. It is about 2 xxx, 7 xxx alloys and magnesium content $\geq 3.0\%$ average of 5 xxx alloy into A class (referred to as the hard alloy type), is another type of other alloys (referred to soft alloys);

--- Increased 1350,2014,2014A, 2017A, 3102,3103,5005,5005A, 5051A, 5251,5019,5049,5154A, 5454,5754,5083,5086,6101A, 6101B, 6005,6005A, 6110A, 6023,6351,6060,6360,6261, 6262,6262A, 6063A, 6463,6065,6081,6082,6182,7003,7005,7108,7108A, 7020,7021,7022, 7049A total of 43 brands;

--- The maximum thickness of the product expanded from the original 150mm to 240mm;

--- Resistivity index of the original 6101 alloy requirements into the conductivity indicator;

--- Increasing the angular deviation of the requirements in size deviations;

--- Increased porosity in low magnification, the compound and the oxide film between the bright grains, non-metallic inclusions, segregation or metal compounds Regulations defects.

The standard reference method using redrafted EN755-1:2008 "aluminum and aluminum alloy extruded bar, tube and profiles - Part 1. Inspection Inspection and delivery of technical conditions ", EN755-2:2008" aluminum and aluminum alloy extruded rods, tubes and profiles - Part 2. Mechanical Properties "and EN755-5:2008 "aluminum and aluminum alloy extruded bar, tube and profiles - Part 5. Rectangular bars size deviation" preparation, and EN755-1.

2008, EN755-2:2008 and EN755-5:2008 non-equivalent degree of consistency.

This standard by the national non-ferrous metals Standardization Technical Committee

(SAC/TC243) centralized.

1 Scope

This standard specifies the aluminum and aluminum alloy extruded rods and flat plate requirements, test methods, inspection rules and signs, packaging, transportation, storage and quality Amount certificate with your order (or contract) content.

This standard applies to all industrial sectors need a rectangular cross section (excluding square) flat extruded rods and plates.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 3190 Wrought aluminum and aluminum alloy chemical composition GB/T 3199 aluminum and aluminum alloy products - Packing, marking, transportation and storage GB/T 3246.1 aluminum and aluminum alloys products inspection method - Part 1 Deformation. microstructure inspection method GB/T 3246.2 aluminum and aluminum alloys products inspection method - Part 2 Deformation. low magnification inspection method GB/T 7999 aluminum and aluminum alloys Optical emission spectroscopy method GB/T 8170 provisions of rounding value GB/T 12966 Aluminum conductivity eddy current testing methods GB/T 16865 wrought aluminum, magnesium and their alloys processed products and methods of the tensile test specimens GB/T 17432 Wrought aluminum and aluminum alloy chemical analysis sampling method GB/T 20975 (all parts), chemical analysis of aluminum and aluminum alloys

3.1.1 Classification of alloy composition Product Category

Products by alloy composition divided into two categories as shown in Table 1.

Table 1 Classification of alloy composition Product Category

Product Category Definitions I class (Soft alloy extrusion rods and flat plate) in addition to 2 xxx Department of magnesium alloy and the amount of 7 xxx lines mean greater than or equal outer 3% 5 xxx alloy thereof His products, such as the following brands of products. 1070A, 1070,1060,1050A, 1050,1350,1035,1100,1200, 3102,3003,3103,3A21,5005,5005A, 5051A, 5251,5052,5049,5454,5A02,6101,6101A, 6101B, 6005,6005A, 6110A, 6023,6351,6060,6360,6061,6261,6262,6262A, 6063, 6063A, 6463,6065,6081,6082,6182,6A02,8A06 II class (Hard alloy extrusion rods and flat plate) 2 xxx Department of magnesium alloy and the amount of 7 xxx lines mean greater than or equal 3% 5 xxx alloy products, such as the Under the brands of products 2017,2017A, 2014,2014A, 2024,2A11,2A12,2A14,2A50,2A70,2A80, 2A90,5019,5154A,

5754,5083,5086,5A03,5A05,5A06,5A12,7003,7005,7108,7108A, 7020,7021,7022,7049A,
7075,7A04,7A09