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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 21351-2023

Replacing GB 21351-2014

**The norm of energy consumption per unit production of
wrought aluminium and aluminium alloys**

变形铝及铝合金单位产品能源消耗限额

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1 Scope

GB 21351-2023 is the Chinese national standard on the norm of energy consumption per unit production of wrought aluminium and aluminium alloys, in the field of energy and heat transfer engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 23 May 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 June 2024. Classification: ICS 27.010, CCS F01. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the

tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies product classification of wrought aluminium and aluminium alloys, levels of norm of energy consumption per unit production, technical requirements, energy consumption statistical scope and calculation methods. This document is applicable to the calculation and assessment of unit product energy consumption (hereinafter referred to as energy consumption) of manufacturers of wrought aluminium and aluminium alloys for general industrial use, as well as energy consumption control of new projects. This document does not apply to the calculation and assessment of energy consumption of aluminum and aluminum alloy products produced in special fields such as aviation and aerospace, as well as powder metallurgy, injection molding and other special processes.

2 Normative references

The following referenced documents are indispensable for the application 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.

GB/T 2589, General rules for calculation of the comprehensive energy consumption

GB/T 8005.1, Aluminium and aluminium alloy terms and definitions -- Part 1: Product and method of processing and treatment

GB/T 12723, General principles for establishing allowance of energy consumption per unit throughput

3 Terms and definitions

For the purposes of this document, the terms and definitions defined in GB/T 2589, GB/T 8005.1 and GB/T 12723 apply. provisions of Level 2 in Table 5.

6.2.1.2 Cold-rolled plates 6.2.1.2.1 The energy consumption limit value per unit product of cold-rolled plate products of existing enterprises shall comply with the provisions of Level 3 in Table 6. 6.2.1.2.2 The admission value of energy consumption per unit product of cold-rolled plates for newly built, renovated and expanded enterprises shall comply with the provisions of Level 2 in Table 6.

6.2.2 Strips

6.2.2.1 Hot-rolled strips 6.2.2.1.1 The energy consumption limit value per unit product of hot-rolled strips of existing enterprises shall comply with the provisions of Level 3 in Table 7. 6.2.2.1.2 The energy consumption per unit product value of hot-rolled strips for newly built, renovated and expanded enterprises shall comply with the requirements of Level 2 in Table 7.

6.2.2.2 Cold-rolled strips 6.2.2.2.1 The energy consumption limit value per unit product of cold-rolled strips of existing enterprises shall comply with the provisions of Level 3 in Table 8. 6.2.2.2.2 The energy consumption per unit product value of cold-rolled strips for newly built, renovated and expanded enterprises shall comply with the provisions of Level 2 in Table 8.

6.2.2.3 Cast-rolled strips 6.2.2.3.1 The energy consumption limit per unit product of cast-rolled strips of existing enterprises shall comply with the requirements of Level 3 in Table 9. 6.2.2.3.2 The admission value of energy consumption per unit product of cast-rolled strips for newly built and renovated and expanded enterprises shall comply with the provisions of Level 2 in Table 9.

6.2.3 Foils

6.2.3.1 The energy consumption limit value per unit product of foils of existing enterprises shall comply with the provisions of Level 3 in Table 10.

6.2.3.2 The admission value of energy consumption per unit product of foils for newly built, renovated and expanded enterprises shall comply with the provisions of Level 2 in Table 10.

6.3.1 Extruded pipes

6.3.1.1 Extruded seamless pipes 6.3.1.1.1 The energy consumption limit per unit product of extruded seamless pipes of existing enterprises shall comply with the provisions of Level 3 in Table 11. 6.3.1.1.2 The energy consumption per unit product energy consumption value of extruded seamless pipes for newly built and renovated and expanded enterprises shall comply with the provisions of Level 2 in Table 11.

6.3.1.2 Extruded seam pipes 6.3.1.2.1 The energy consumption limit per unit product of extruded seam pipes of existing enterprises shall comply with the provisions of Level 3 in Table 13. 6.3.1.2.2 The admission value of energy consumption per unit product of extruded seam pipes for newly built and renovated and expanded enterprises shall comply with the provisions of Level 2 in Table 13.

6.3.2 Extruded bars, plates and wires

6.3.2.1 The energy consumption limit value per unit product of extruded bars, plates and wire rods of existing enterprises shall comply with the provisions of Level 3 in Table 12.

6.3.2.2 The energy consumption per unit product admission value for extruded bars, plates and wire rods of newly built, renovated and expanded enterprises shall comply with the provisions of Level 2 in Table 12.

6.3.3 Extruded profiles

6.3.3.1 The energy consumption limit value per unit product of extruded profiles of existing

enterprises shall comply with the provisions of Level 3 in Table 13.

6.3.3.2 The energy consumption per unit product energy consumption value of extruded profiles for newly built, renovated and expanded enterprises shall comply with the provisions of Level 2 in Table 13.

6.4.1 Drawn (rolled) pipes

6.4.1.1 The energy consumption limit per unit product of drawn (rolled) pipes produced by existing enterprises shall comply with the requirements of Level 3 in Table 14.

6.4.1.2 The admission value of energy consumption per unit product for drawn (rolled) pipes in newly built, renovated and expanded enterprises shall comply with the provisions of Level 2 in Table 14.

6.4.2 Drawn (rolled) bars and wires

6.4.2.1 The energy consumption limit per unit product of drawn (rolled) bars and wire rods produced by existing enterprises shall comply with the requirements of Level 3 in Table 15.

6.4.2.2 The admission value of energy consumption per unit product of drawn (rolled) bars and wire rods in newly built, renovated and expanded enterprises shall comply with the provisions of Level 2 in Table 15.

6.5 Surface-treated pipes, bars and profiles

6.5.1 The energy consumption limit per unit product of surface-treated pipes, bars, and profiles of existing enterprises shall comply with the provisions of Level 3 in Table 16.

6.5.2 The energy consumption per unit product admission value of surface-treated pipes, bars, and profiles of existing enterprises shall comply with the provisions of Level 2 in Table 16.

6.6 Composite profiles

6.6.1 The energy consumption limit value per unit product of composite profiles of existing enterprises shall comply with the provisions of Level 3 in Table 17.

6.6.2 The energy consumption per unit product admission value of composite profiles of existing enterprises shall comply with the provisions of Level 2 in Table 17.

6.7.1 Free forgings

6.7.1.1 The energy consumption limit value per unit product of free forgings of existing enterprises shall comply with the provisions of Level 3 in Table 18.

6.7.1.2 The admission value of energy consumption per unit product of free forgings in