

ICS 27.010
CCS F01



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

GB 29435-2025

Replacing GB 29435-2012

**Norm of energy consumption per unit production of rare earth
metallurgical enterprise**

稀土冶炼企业单位产品能源消耗限额

Issued on: December 31, 2025

Implemented on: January 1, 2027

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document supersedes GB 29435-2012 "Energy Consumption Limits per Unit Product for Rare Earth Smelting and Processing Enterprises" and is consistent with GB 29435-2012. Aside from structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope of application for rare earth tri-color phosphors and polishing powders for lamps has been removed (see Chapter 1 of the 2012 edition);
- b) The scope of application has been expanded to include products manufactured using the comprehensive recycling process for NdFeB waste (see Chapter 1);
- c) The energy consumption limit level index values have been changed (see Chapter 4, Chapter 4 of the 2012 edition);
- d) Product categories have been added, with rare earth compounds divided into ion-adsorption rare earth ore production, mixed rare earth ore production, fluorocarbon cerium ore production, and neodymium production. The comprehensive recycling and production of iron-boron waste is divided into four categories, while rare earth metals and alloys are divided into two categories. electrolytic production and intermediate alloy production (see...). Chapter 4);
- e) The statistical scope and calculation methods have been changed (see Chapter 6, Chapter 5 of the 2012 edition). Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying

patents. This document was proposed and is under the jurisdiction of the Standardization Administration of China. This document was first published in 2012, and this is its first revision. Energy consumption limit per unit product for rare earth smelting enterprises

1 Scope

GB 29435-2025 is the Chinese national standard on norm of energy consumption per unit production of rare earth metallurgical enterprise, 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 31 December 2025 by the State Administration for Market Regulation; Standardization Administration of China, and takes effect on 1 January 2027. 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 the energy consumption limits (hereinafter referred to as energy consumption) per unit product (compounds, metals, and alloys) for rare earth smelting enterprises, and related technical requirements. Technical requirements, statistical scope, and calculation methods. This document applies to the calculation and assessment of energy consumption per unit product (compounds, metals, and alloys) in rare earth smelting enterprises, as well as for new and expanded enterprises. Energy consumption control for construction projects. This document also applies to rare earth compounds produced using the comprehensive recycling process of NdFeB waste.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 2589 General Rules for Calculating Comprehensive Energy Consumption

GB/T 12723 General Rules for Compiling Energy Consumption Limits per Unit Product

3 Terms and Definitions

The terms and definitions defined in GB/T 2589 and GB/T 12723 apply to this document.

4.1 Energy Consumption Limits for Rare Earth Compounds

4.1.1 The energy consumption limit levels for the production of rare earth compounds from ion-adsorption rare earth ores are shown in Table 1, with Level 1 having the lowest energy consumption. Table

1. Energy Consumption Limits per Unit Product for Rare Earth Compound Production from Ionic Rare Earth Minerals
Serial Number Product Name The comprehensive energy consumption per unit product shall not exceed tce/t Level

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