

ICS 77.120.99

CCS H65



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

GB/T 13558-2019

Replacing GB/T 13558-2008

Dysprosium oxide

氧化镝

Issued on: August 30, 2019

Implemented on: July 1, 2020

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

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Technical requirements
- 3.2 Chemical composition
- 5 Dy₂O₃-3N Dy₂O₃-2N

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 13558-2008 "Antimony Oxide". Compared with GB/T 13558-2008, the main technical changes in this standard are as follows:

- Added normative reference document GB/T 17803 (see Chapter 2);
- Increased product classification (see 3.1);
- Added character grades (see 3.1, 3.2);
- Added the expression that all tests are in the state before the removal of moisture (see 3.2.1);
- Revised the representation method of rare earth impurity content, from the relative amount to the absolute quantity, deleted the denominator REO (see 3.2.1, 2008 edition) 3.1);
- Added total elemental analysis of rare earth impurities for product grade Dy₂O₃-4N (see 3.2.1);
- Added a single sheet of Yb₂O₃ for product grades Dy₂O₃-4N, Dy₂O₃-3N5, Dy₂O₃-3N, Dy₂O₃-2N5, Dy₂O₃-2N Elemental analysis (see 3.2.1);
- Modified the content of some non-rare earth impurities in the product grade Dy₂O₃-4N, the calcium oxide (CaO) content is not more than 0.005% is modified to not more than 0.003%, and the content of alumina (Al₂O₃) is modified from not more than 0.010% to not more than 0.005%. The content of silica (SiO₂) is modified from not more than 0.005% to not more than 0.002% (see 3.2.1, 3.1 of 2008 edition);
- Revised the content of iron oxide (Fe₂O₃) in some product grades, and the content of iron oxide (Fe₂O₃) in Dy₂O₃-3N

5 Not more than 0.0010% is modified to not more than 0.0020%, and the content of iron oxide (Fe_2O_3) in $\text{Dy}_2\text{O}_3\text{-3N}$ is not more than 0.0020% modified to not more than 0.0030%, the content of iron oxide (Fe_2O_3) in $\text{Dy}_2\text{O}_3\text{-2N}_5$ is not more than 0.0030% Changed to not more than 0.0050%, the content of iron oxide (Fe_2O_3) in $\text{Dy}_2\text{O}_3\text{-2N}$ is modified from not more than 0.0050% to not more than 0.0100% (see 3.2.1,

3.1 of the.2008 edition);

--- Increased the content of non-rare earth impurities such as sodium oxide (Na_2O), sulfate (SO_4^{2-}), etc. (see 3.2.1);

1 Scope

GB/T 13558-2019 is the Chinese national standard on dysprosium oxide, in the field of metallurgy. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 30 August 2019 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2020. Classification: ICS 77.120.99, CCS H65. 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 standard specifies the technical requirements, test methods, inspection rules and signs, packaging, transportation, storage and quality certificates of antimony oxide. This standard applies to cerium oxide prepared by chemical method, mainly used as raw materials for metal bismuth and strontium iron alloys, as an additive for glass and NdFeB permanent magnet production, etc.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 8170 Numerical Rounding Rules and Representation and Determination of Limit Values

GB/T 12690 (all parts) Chemical analysis methods for non-rare earth impurities in rare earth metals and their oxides

GB/T 14635 Chemical analysis of rare earth metals and their compounds - Determination of total

GB/T 17803 Rare Earth Product Grade Representation Method

GB/T 18115.9 Chemical analysis method for rare earth impurities in rare earth metals and their oxides ,,,,,, Determination of , , , , and

3 Technical requirements

3.1 Product Classification The products are divided into Dy2O3-4N, Dy2O3-3N5, Dy2O3-3N, Dy2O3-2N5, Dy2O3-2N5 grades according to their chemical composition. The method of brand representation shall comply with the provisions of GB/T 17803.

3.2 Chemical composition

3.2.1 The chemical composition of the product shall comply with the requirements of Table 1. All chemical components in the table are determined before the reduction of moisture and before the reduction. If you need The product has special requirements, which can be negotiated and determined by both parties. Table

1 Chemical composition of cerium oxide Product grade Character grade Dy2O3-4N
Dy2O3-3N

5 Dy2O3-3N Dy2O3-2N

5 Dy2O3-2N Corresponding to the original number plate 101040 101035 101030 101025 101020 chemical composition (quality fraction)/% REO, not less than 99.0 99.0 99.0 99.0

99.0 Dy2O3/REO, not less than 99.99 99.95 99.9 99.5

99.0 GB/T 13558-2019 Dysprosium oxide ICS

65 National Standards of People's Republic of China Replace GB/T 13558-2008 Yttrium oxide Published on.2019-08-30 2020-07-01 implementation State market supervision and administration China National Standardization Administration issued