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XB

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

XB/T 215-2015

Replacing XB/T 215-2006

Dysprosium fluoride
(English Translation)

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Foreword

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

This standard replaces XB/T 215-2006 "dysprosium fluoride." this standard and XB/T 215-2006 compared to the main technical changes are as follows.

- Modify the REO of all grades, adjusted from 83% to $84\% \pm 1\%$;
- Modify the amount of fluorine (F) of various grades, adjusted from 24% to $25\% \pm 1\%$;
- Increased water (H₂O) content of the assessment indicators;
- Increased the assessment of nickel oxide indicators;
- Modify the grade 10,2035,102030,102025 iron oxide (Fe₂O₃) assessment indicators;
- Increased 10,2040 grade;
- Remove the 10,2020 grade.

This standard by the National Rare Earth Standardization Technical Committee (SAC/TC229) and focal point.

This standard is mainly drafted by. Baotou Rare Earth Research Institute, Baotou Ruida Rare Earth Materials Co., Ltd., Ganzhou Qiao East Rare Earth Group Co., Ltd.

Company, Rare Earth New Materials Co., Ltd., Ganzhou dawn Rare Earth New Materials Co., Ltd..

1 Scope

This standard specifies the fluoride product requirements, test methods, inspection rules and signs, packaging, transportation, storage and quality certificates.

This standard applies to the chemical method (dry method) prepared for the production of

metal dysprosium, iron alloy, metallurgy and special steel with dysprosium fluoride.

2 Normative references

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

GB/T 8170 rounded repair rules and limit values of the representation and judgment GB/T 12690 (all parts) - Non-rare earth impurities in rare earth metals and their oxides - Chemical analysis methods Methods for chemical analysis of rare earth metals and their compounds - Determination of total rare earths GB/T 18115.9 rare earth metals and their oxides rare earth impurities chemical analysis of dysprosium in lanthanum, cerium, praseodymium, neodymium, samarium, europium, gadolinium, Determination of terbium, holmium, erbium, azulene, ytterbium, azulene and yttrium XB/T 615 Methods for chemical analysis of fluorinated rare earths - Determination of fluorine content - Steam distillation - EDTA titration

3.1 Chemical composition

Dysprosium fluoride chemical composition of the product should be consistent with the provisions of Table 1. Demand side, such as the product has special requirements, determined by the supply and demand sides negotiated.

Table 1

product

Grade

character

Grade

digital

Grade

Chemical composition (mass fraction) /% REO Dy₂O₃ /REO not less than Impurity content, not more than Rare earth impurities Non-rare earth impurities

Gd₂O₃Tb₄O₇Ho₂O₃Er₂O₃Y₂O₃ other Rare earth the amount Fe₂O₃SiO₂ CaOAl₂O₃NiO

O w (H₂O) DyF₃-4N 10204084 ±.199.9925 ± 10.001 0.003 0.002 0.0010.0020.001 0.01

0.01 0.01 0.010.010.04 0.5 DyF₃-3N510203584 ±.199.9525 ± 1 0.05 0.02 0.03 0.01

0.030.050.15 0.5 DyF₃-3N 10203084 ±.199.9025 ± 1 qs 0.1 0.05 0.04 0.05 0.050.050.15

0.5 DyF₃-2N510202584 ±.199.5025 ± 1 Amount 0.5 0.05 0.05 0.05 0.050.050.15 0.5 Note.

Other rare earth elements include La, Ce, Pr, Nd, Sm, Eu, Tm, Yb, Lu.

3.2 Appearance

3.2.1

product is white powder.