



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

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Standard for terminology of light metal smelting engineering

轻金属冶炼工程术语标准

(English Translation)

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Foreword

This standard was prepared jointly by China Nonferrous Engineering Co., Ltd. and Shenyang Aluminium and Magnesium Engineering and Research Institute Co., Ltd., together with the organizations concerned, in accordance with the requirements of the Notice on Printing and Distributing the "Plan for the Formulation and Revision of Engineering Construction Standards in 2010" (JIANBIAO [2010] No. 43) issued by the Ministry of Housing and Urban-Rural Development.

During the preparation of this standard, the drafting group carried out extensive investigation and research, conscientiously summarized practical experience, made reference to international standards and advanced foreign standards, and, on the basis of widely soliciting opinions, finally finalized the standard through review.

This standard comprises 8 chapters and 2 appendixes. The main technical contents include: general provisions, basic terms, alumina production, carbon production for aluminium, fluoride salt production for aluminium, aluminium smelting, magnesium smelting, titanium smelting, etc.

The Ministry of Housing and Urban-Rural Development is in charge of the administration of this standard, the Administrative Office of Engineering Construction Standards of the China Nonferrous Metals Industry is responsible for its routine management, and Shenyang Aluminium and Magnesium Engineering and Research Institute Co., Ltd. is responsible for the explanation of its technical contents. Any comments or suggestions arising during implementation should be sent to Shenyang Aluminium and Magnesium Engineering and Research Institute Co., Ltd. (address: No. 184 Heping North Street, Shenyang; postcode: 110001).

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1 General provisions

1.0.1

This standard is formulated with a view to unifying the commonly used terms of light metal smelting engineering in China and their definitions, achieving the standardization of technical terms, facilitating technical exchange in engineering construction at home and abroad, and promoting the quality, safety and technical development of engineering construction in the light metal smelting industry.

1.0.2

This standard is applicable to the terms used in the planning, survey, design, procurement, construction, installation, operation and maintenance, and project management of light metal smelting engineering.

1.0.3

In addition to complying with this standard, the terms of light metal smelting shall also comply with the provisions of the current relevant national standards.

2.0.1 light metal

Metal of relatively low density. The commonly used light metals are aluminium, magnesium and titanium.

2.0.2 aluminium

Metallic element of group IIIA, period 3 of the periodic table of elements, symbol Al, atomic number 13, atomic weight 26.982, density 2.70g/cm³ (at 20°C).

2.0.3 magnesium

Metallic element of group IIA, period 3 of the periodic table of elements, symbol Mg, atomic number 12, atomic weight 24.305, density 1.74g/cm³ (at 20°C).

2.0.4 titanium

Metallic element of group IVB, period 3 of the periodic table of elements, symbol Ti, atomic number 22, atomic weight 47.867, density 4.51g/cm³ (alpha-titanium at 20°C).

2.0.5 alloy

Substance with metallic properties synthesized from two or more metals or non-metals by a certain method.

2.0.6 matrix metallic element

The metallic element that is predominant by mass in an alloy.

2.0.7 alloying element

Metallic or non-metallic element added to or retained in the matrix metal in order to obtain an alloy with specific properties.