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

GB/T 3461-2016

Molybdenum powder

钼粉

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Quarantine;
Standardization Administration of the PRC**

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 3461-2006 "molybdenum powder". This standard compared with GB/T 3461-2006, the main technical changes are as follows:

- to remove the product specifications requirements;
- modified the classification of products based;
- increase the Ti, Mn, Cr, W impurity element requirements;
- adjust the content of the main elements and Cd, Fe, Si, Ca, Mg impurity element content;
- removed the "product over 175 μ m (80 mesh) screen, with the visual inspection inclusions" requirements. This standard is proposed by China Nonferrous Metals Industry Association. This standard is owned by the National Committee for the Standardization of Nonferrous Metals (SAC/TC243). This standard is responsible for drafting units. Jinduicheng Molybdenum Co., Ltd., Zigong Cemented Carbide Co., Ltd., Beijing Tianlong Tungsten Molybdenum Technology Co., Ltd., Suzhou Apex Rare Metal Co., Ltd. The main drafters of this standard. Shi Dawei, Ma Zhijun, Zhao Xinrui, Wang Guoliang, Liu Xingguang, Yi Lian, Li Zhixiang, Yang Yibing, Kong Peng This standard replaced the previous version of the standard release.
- GB/T 3461-1982, GB/T 3461-2006. Molybdenum powder

1 Scope

China's national standard for molybdenum powder. It specifies the requirements, test methods, inspection rules, marking, packaging, transport, storage, quality certificate and order content, and it applies to molybdenum powder produced by reducing molybdenum oxide or molybdate. Like tungsten, molybdenum is a powder metallurgy metal: it melts at 2623 degrees C and is made into products by pressing and sintering rather than by casting. The powder is produced by reducing the oxide with hydrogen, usually in two stages, and the conditions of that reduction set the particle size, the particle shape and the oxygen

content that remains. Those three properties then decide everything about the products made from it - how the compact presses, how it sinters, what density it reaches and how the finished part behaves. Molybdenum goes into furnace elements and heat shields, into the electrodes that melt glass, into sputtering targets for displays and thin film solar cells, and as an alloying addition to steel; each of those wants a different powder, which is why the standard grades it rather than specifying one.

This standard specifies the requirements, test methods, inspection rules, marking, packaging, transportation, storage, quality certificates and orders for molybdenum powder (or Same) content. This standard applies to the reduction of molybdenum oxide or molybdate molybdenum powder with hydrogen.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document. Metallic powders - Determination of bulk density - Part 2. Scott 's volumetric method GB/T 1479.2

GB/T 3249 Methods for determination of particle size of metals and their compounds

GB/T 4325 (all parts) molybdenum chemical analysis method Method for sampling powder for powder metallurgy GB/T

3 Request

3.1 Product Classification Products according to different chemical composition, divided into FMo-1, FMo-2 two grades. FMo-1 is mainly used for the preparation of molybdenum products, raw materials; FMo-

2 Mainly used for the preparation of alloy additives.

3.2 Chemical composition The chemical composition of the product shall comply with the provisions of Table 1. Table 1 % Product brand FMo-1 FMo-