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

GB/T 33813-2017

Refining slag powder used for cement and concrete

用于水泥和混凝土中的精炼渣粉

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009. This standard is proposed by China Iron and Steel Industry Association. This standard is under the jurisdiction of the National Steel Standardization Technical Committee (SAC/TC183). The drafting of this standard. China Metallurgical Building Research Institute Co., Ltd., China Metallurgical Energy Saving and Environmental Protection Co., Ltd., Hubei E steel affiliated enterprises Company, Zhangjiagang Hengle New Building Materials Co., Ltd., Anshan Iron and Steel Group Corporation slag development company, Metallurgical Industry Information Standards Institute, Jiangsu Shagang Group Co., Ltd. The main drafters of this standard. Lu Zhongfei, Zhang Liangliang, Hao to party, Hu Zhifa, Lu Wen, Su Xingwen, Wang Chengjie, Xia Chun, Qiu Jinhui, Li Xiaoyang, Wang Jiangwei, Chu Ning, Qiu Peng, Li Jianzhong, Zhang Yibo, Zhang Zhibiao, Cao Xin, Li Yuanyuan, Li Xiaobo, Wu Yuling. Used in cement and concrete in the refining slag powder

1 Scope

China's national standard for ground refining slag used as a supplementary cementitious material in cement and concrete. Refining slag is the by-product of the ladle refining stage of steelmaking, where the steel is adjusted to its final composition and the impurities are floated off into a lime-rich slag. That slag is chemically close to cement clinker - it is mostly lime, silica and alumina - and when ground fine enough it will react with water and with the lime that Portland cement releases as it hydrates. Using it saves the clinker it replaces, and clinker is where almost all of cement's carbon dioxide comes from. The standard sets out the terms and definitions, the components and materials, the technical requirements, the test methods, the inspection rules and the packaging, marking, transport and storage. It applies to refining slag powder for cement and concrete but excludes stainless steel refining slag, which carries chromium and cannot be put into building materials on the same terms.

This standard specifies the terms and definitions for refining slag powder in cement and concrete, components and materials, technical requirements, test methods, inspection

Rules, packaging, marking, transportation and storage. This standard applies to cement and concrete with refined slag powder, refined stainless steel slag except.

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. For undated references, the latest edition (including all modifications) applies to this document. Methods for chemical analysis of cement GB/T

GB/T 208 Determination of cement density

GB/T 750 Test method for steam pressure stability of cement

GB/T 1346 cement standard consistency water consumption, setting time, stability test method

GB 6566 Radiation nuclide limits for building materials

GB/T 8074 Determination of specific surface area of cement Concrete admixture GB/T 9774 cement bags

GB/T 12573 Cement Sampling Method

GB/T 26748 cement grinding aids Specification for application of mineral admixtures

GB/T 51003-2014 YB/T 804 Steel slag and treatment terminology Determination of free calcium oxide content in steel slag YB/T 4328

3 Terms and definitions

YB/T 804 and the following terms and definitions apply to this document.

3.1 Refining slag powder refining slag powder To refining slag as the main raw material grinding into a certain fineness of the powder material.

4 Grinding aids

Grinding aids should be in accordance with GB/T 26748, the amount of added should not be more than 0.5% of the quality of refined slag powder.

5 Technical requirements

The technical requirements for the refining slag powder shall be in accordance with Table 1.