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

GB/T 397-2022

Commercial coal quality - Coal for coke making

商品煤质量 炼焦用煤

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part

1. Structure and Drafting Rules of Standardization Documents" drafted. This document replaces GB/T 397-2009 "Technical Conditions for Coking Coal", compared with GB/T 397-2009, except for structural adjustment and editing. In addition to the sexual changes, the main technical changes are as follows:

a) Changed the product quality level and technical requirements (see Chapter 4, Chapter 4 of the 2009 edition);

b) The division of coking coal products is added. Commercial coal for coking is divided into single coal and blended coal, of which single coal is in accordance with GB/T 5751 Classify coal; classify the quality grade of commercial coal for coking according to ash content and sulfur content, and use "category ash content grade full sulfur grade" is expressed in the form of (see 4.1);

c) Added inspection rules (see Chapter 6);

d) Added identification, transportation and storage requirements (see Chapter 7). Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents. This document is proposed by China Coal Industry Association. This document is under the jurisdiction of the National Coal Standardization Technical Committee (SAC/TC42). This document is drafted by: Coal Science and Technology Research Institute Co., Ltd., Shanxi Coking Coal Group Co., Ltd., National Energy Investment Group Coal Management Branch of Co., Ltd., Huaibei Mining Co., Ltd., Yaojie Coal and Electricity Group Co., Ltd., Lu'an Chemical Industry Group Co., Ltd. Company, Jinneng Holding Coal Industry Group Co., Ltd., China Coal Huali Energy Holdings Co., Ltd., Shandong Energy Group Co., Ltd. Marketing and Trade Branch, Shanghai Meishan Iron and Steel Co., Ltd., Anshan Iron and Steel Co., Ltd., Huaihe Energy Holding Group Co., Ltd. The main drafters of this document. Bai Xiangfei, Ding Hua, Fan Wensheng, Shi Zhenzhong, Wang Chunhua, Huang Haifeng, Zhang Bingzhong, Zhang Wei, Ren Wenli, Wang Xingzhong, Wang Xiaoming, Wang Jianwen, Yuan Chongliang, Yu Qingquan, Li Xiuchun, Zhang Qilin, Zhang Wencheng, Wu Linlin, Gan Xiushi, Fu Maoquan,

Lu Qijun, Wang Chunjing, Zhang Yuhong. The previous versions of this document and its superseded documents are as follows:

- First published in 1965 as GB/T 397-1965, first revised in 1998;
- In the second revision in 2009, the content of GB/T 17609-1998 "Technical Conditions for Foundry Coking Coal" was incorporated;
- This is the third revision. Commercial Coal Quality Coking Coal

1 Scope

China's national standard for the quality of commercial coking coal. It specifies the quality grades and technical requirements, the test methods, the inspection rules and the identification. Coking coal is a distinct commodity from thermal coal and a far scarcer one: only a narrow range of bituminous coals soften, swell and resolidify when heated in the absence of air to form the strong porous coke that a blast furnace requires. That property cannot be replaced or synthesised, and no other material substitutes for coke's dual role of reducing the ore and physically supporting the burden. The quality parameters that matter are therefore the ones that predict coke strength - the caking and swelling indices, the fluidity, the reflectance - alongside the ash and sulfur that pass into the iron. China produces and consumes more coke than the rest of the world combined, which makes this specification a commodity standard of consequence.

This document specifies the quality grades and technical requirements, test methods, inspection rules, identification, transportation and storage of commercial coal products for coking. This document applies to commercial coal for coking in all links of production, processing, storage and transportation, sales, and use.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 211 Determination method of total moisture in coal

GB/T 212 Industrial Analysis Method of Coal

GB/T 214 Determination method of total sulfur in coal

GB/T 216 Determination method of phosphorus in coal

GB/T 474 Preparation method of coal samples

GB/T 475 Manual method for commercial coal samples

GB/T 479 Determination method of colloidal layer index of bituminous coal

GB/T 1574 Coal Ash Composition Analysis Method

GB/T 3058 Determination method of arsenic in coal

GB/T 3558 Determination method of chlorine in coal

GB/T 4000 Test method for coke reactivity and strength after reaction

GB/T 4633 Determination method of fluorine in coal

GB/T 5447 Determination method of bituminous coal adhesion index