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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 47093-2026

Chemical analysis methods for alumina fibre

氧化铝纤维化学分析方法

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Table of Contents

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the China Building Materials Federation. This document is under the jurisdiction of the National Technical Committee on Standardization of Glass Fiber (SAC/TC245). This document was drafted by: Nanjing Guocai Testing Co., Ltd., a subsidiary of China National Testing & Inspection Holding Group, and the Aerospace Special Materials and Process Technology Research Institute. Shanghai Rongrong New Materials Technology Co., Ltd., Shandong Dongheng Guoxian New Materials Co., Ltd., Shandong Luyang Energy-Saving Materials Co., Ltd., Shandong Luko New Materials Co., Ltd., Anhui Yaoshi New Materials Technology Co., Ltd., Bruker (Beijing) Technology Co., Ltd., Jiangsu Qiyi Technology Limited Liability Company, Dezhou Shengyuan Fiber Technology Co., Ltd., China Chemical Fiber Industry Association, Shanghai Textile Research Institute Jiangban Textile Technology Service Co., Ltd. company. The main drafters of this document are. Li Yong, Wang Ling, Zhang Lei, Zhang Lijuan, Shi Zhuo, Guan Ketian, Song Jiandong, Pang Xiuxiu, Li Yang, Wang Ying, and Lü Liangyi. Ying Xiaohu, Wan Zetao, Zhu Chengzhuo, Wang Xinzong, Yang Jie, Gao Yumeng, Chen Yongjian, Li Deli, Wang Lili, Xu Liang, Lan Lin, Jiao Xiuling, Hao Zhengtao Qu Xiaoji. Chemical Analysis Methods for Alumina Fibers Warning

---Personnel using this document should have formal experience working in a chemical laboratory. This document does not cover all possible safety hazards. Problem. Users are responsible for taking appropriate safety and health measures and ensuring compliance with relevant national regulations.

1 Scope

GB/T 47093-2026 is the Chinese national standard covering the composition of alumina fibre - the alumina and silica proportions that decide its crystalline phase and its use temperature, and the alkali and iron impurities that lower both. It is the fibre of high-temperature furnace linings and of ceramic matrix composites. First edition, 19,000 words, published with GB/T 47086-2026 on fibre diameter. It was issued on 28 January 2026 and has been in force since 1 August 2026, as a first edition. The document is under the responsibility of the China Building Materials Federation. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document describes the method for analyzing the chemical composition of alumina fibers. This document applies to the determination of the chemical composition of alumina fibers, alumina fiber products, and alumina fiber sol.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 601 Preparation of Standard Titration Solutions for Chemical Reagents GB/T 4842 Argon

GB/T 6682 Specifications and test methods for water used in analytical laboratories

GB/T 8979 Pure Nitrogen, High-Purity Nitrogen and Ultra-Purity Nitrogen

GB/T 10067.44 Basic Technical Conditions for Electric Heating Devices - Part

44.Box-type Resistance Furnaces

GB/T 16597 General Rules for X-ray Fluorescence Spectrometry in Metallurgical Products

GB/T 18374 Terminology for Reinforcing Materials

GB/T 26810 Visible Spectrophotometer

3 Terms and Definitions

The terms and definitions defined in GB/T 18374 apply to this document.

4 General Rules

4.1 Reagents and Water Unless otherwise specified, all reagents used should be analytical grade, and reagents used to prepare standard stock solutions should be primary reference reagents or reagents with a purity greater than or equal to [a certain value]. 99.99%. The water used is of Grade I or higher as specified in GB/T 6682.

4.2 Parallel Tests Two experiments were conducted simultaneously under the same conditions.

4.3 Blank Test The test was conducted in parallel with the sample test, and the test procedures and conditions were completely consistent with the sample test, except that no sample was added.

4.4 Instruments and Equipment All equipment used should be inspected or calibrated regularly.