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

GB/T 46537-2025

Alumina continuous fibre

氧化铝连续纤维

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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 and is under the jurisdiction of the National Technical Committee on Standardization of Chemical Fibers (SAC/TC586). This document was drafted by: Shandong University, Shandong Dongheng Guoxian New Materials Co., Ltd., Shanghai Rongrong New Materials Technology Co., Ltd., and Guozhuang New Materials Co., Ltd. Materials Technology (Jiangsu) Co., Ltd., Shandong Luko New Materials Co., Ltd., Xinxing Jihua (Beijing) Materials Technology Research Institute Co., Ltd., Aerospace Special Materials and Process Technology Research Institute, Chengdu Aircraft Industry (Group) Co., Ltd., Morin (Zhuhai) New Materials Technology Co., Ltd. Shandong Dongheng Colloidal Materials Co., Ltd., Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, Dezhou Shengyuan Fiber Technology Co., Ltd. China Chemical Fiber Industry Association, Shanghai Textile Industry Technical Supervision Institute. The main drafters of this document are: Chen Dairong, Jiao Xiuling, Song Jiandong, Guan Ketian, Ma Xiaomin, Xu Lei, Hao Wei, Zhang Yunrui, Zhang Jian, and Yang Haitang. Zhang Chunsu, Jing Liangxiao, Zhi Jianhai, Zhang Yuanyuan, Li Deli, Wang Lili. Alumina continuous fiber

1 Scope

GB/T 46537-2025 is the Chinese national standard covering continuous alumina fibre - the composition and the crystalline phases, the tensile strength and modulus, the diameter and the sizing, and the retention of properties at the temperatures it exists to work at. Alumina fibre is the reinforcement in the ceramic matrix composites used in aero engines. First edition, in force from 1 May 2026. Issued on 31 October 2025, it has been in force since 1 May 2026.

This document specifies the classification and labeling, technical requirements, inspection

rules, marking, packaging, transportation, storage, and safety precautions for continuous alumina fibers. The corresponding experimental methods are shown. This document applies to continuous alumina fibers with an alumina content of at least 60%, including untwisted rovings and twisted yarns.

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 3044-2020 Chemical Analysis Methods for White Corundum and Chrome Corundum

GB/T 3362 Tensile Properties Test Method for Carbon Fiber Multifilament

GB/T 4984-2023 Chemical Analysis Methods for Zirconium-Containing Refractory Materials

GB/T 6900-2016 Chemical Analysis Methods for Aluminosilicate Refractory Materials

GB/T 7690.3 Test methods for reinforcing yarns - Part

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Continuous fiber Fibers with a sufficiently large aspect ratio and a long continuous length. [Source: GB/T 18374-2022, 3.2]

3.2 Untwisted roving A bundle of basically parallel single continuous fibers (3.1) that are combined without twisting. [Source: GB/T 18374-2022, 4.23, with modifications]

5 Determination of fiber diameter of glass fibers

GB/T 8170-2008 Data rounding rules and the representation and determination of limit values

GB/T 9914.2 Test methods for reinforced products - Part