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New textile materials - Datasheet of chemical properties

纺织新材料 化学性能数据表

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Foreword

This instructional document has been drafted in accordance with the rules given in GB/T 1.1-2009. This Guidance Document is proposed by China National Textile and Apparel Council. The guidance of technical documents by the National Textile Standardization Technical Committee (SAC/TC209) centralized. The drafting of the guidance of technical documents. Textile Industry Standardization Institute, Textile Industry Science and Technology Development Center, Yantai Taihe new material Material Co., Ltd., Changshu Jinqian Chemical Fiber Weaving Co., Ltd., China Chemical Fiber Industry Association. The main drafters of this technical document are Si Ying, Xu Lu, Han Yuru, Liu Feifei, Wang Gujian, Li Deli, Song Cuiyan and Xiang Pengwei.

At present, aramid, polyphenylene sulfide fibers, ultra-high molecular weight polyethylene fibers, new polyester fibers, chitosan fibers, polylactic acid fiber and other high Fibers and new textile fibers developed rapidly, but mostly in the industrialization process, the basic data of a serious shortage of some books, information mentioned Part of the scattered data there is a big difference, and did not indicate the test method, is not comparable, can not meet the product development and application design Department of the material itself based on the performance data needs. The data of this instructional technical document originated from the scientific research special item "Research on basic performance data of textile new material" Fruit, is collected on the basis of the measured value of the sample is given, there are some limitations. Unlike the existing product standards, this guidance

document is not a specification of the performance of the final product and is not intended as a Determine whether the product is qualified basis. This guideline is for reference only. The suggestions and opinions on this technical document are directed to the standardization administration under the State Council Department reflected. Textile New Material Chemical Property Data Sheet

1 Scope

This guiding technical document gives the basic chemical property data of certain textile fibres: chemical solubility and the retention of breaking strength after acid and alkali treatment. This guiding technical document applies to ultra-high molecular weight polyethylene fibre, aramid 1414, aramid 1313, polyphenylene sulfide fibre, polyimide fibre, polytrimethylene terephthalate fibre, polybutylene terephthalate fibre, polylactic acid fibre, chitosan fibre and lyocell fibre.

This guidance document gives the chemical basis of certain textile fibers for their chemical resistance, acid resistance, and alkali retention at fracture toughness The basic data. This guideline is applicable to UHMWPE fibers, aramid 1414, aramid 1313, polyphenylene sulfide fibers, polyimides Fibers, polytrimethylene terephthalate fibers, polybutylene terephthalate fibers, polylactic acid fibers, chitosan fibers and Lyocell fibers.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 6529 Textiles conditioning and testing standard atmosphere

GB/T 6682 analytical laboratory water specifications and test methods Mechanical properties of new textile materials datasheet FZ/T 01057.4 Textile fiber identification test methods Part 4. Dissolution method

3 Chemical performance data sheet

3.1 Textile new material Fiber chemical solubility in Table 1.

3.2 new textile fibers After treatment at room temperature acid and alkali strength retention rate in Table 2.

3.3 new textile fibers After treatment at 80 °C acid and alkali strength retention rate in Table 3. Table

1 Chemical Solubility Reagents Super high score The amount of poly Ethylene fiber Kevlar Kevlar Polyphenylene sulfide Ether fiber Polyimide Amine fiber Poly-benzene Dicarboxylic acid Propylene diester fiber Poly-benzene Dicarboxylic acid Butyl diester fiber Polylactic

acid fiber Chitosan fiber Lyocell fiber 95% ~ 98% sulfuric acid 24 °C ~ 30 °C IPPIPSSSIS
Boil SSSSSSSSSSS 60% sulfuric acid 24 °C ~ 30 °C IIIIIIIIPS Boil SIIIISSSS 40% sulfuric
acid 24 ° C to 30 ° C IIIIIIIII Boil IIIIIIISS 20% sulfuric acid 24 ° C to 30 ° C IIIIIIIII Boil
IIIIIISS

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