



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

GB/T 4146.1-2020

Textiles - Man-made fibres - Part 1: Generic names

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Foreword

GB/T 4146 "Textiles - Man-made fibers" is divided into the following 3 parts.

- Part 1. Generic name;
- Part 2. Terms of products;
- Part 3. Terms of inspection.

This part is Part 1 of GB/T 4146.

This part was drafted in accordance with the rules given in GB/T 1.1-2009.

This part replaces GB/T 4146.1-2009 "Textiles - Man-made fibers - Part 1.

Generic names". Compared with GB/T 4146.1-2009, the main technical changes except for editorial changes are as follows.

- ADD the term and definition "chemical fiber" (see 2.1);
- ADD the generic names, symbols, main properties, chemical formulas of 11 chemical fibers. modified polyacrylonitrile fiber, chitosan fiber, melamine fiber, regenerated protein fiber, triviny fiber, polybenzimidazole fiber, polyester composite elastic fiber, polyester fiber, silicon carbide fiber, polyhydroxyalkanoate fibers, polyarylate fibers (see Table 1);
- DIVIDE the 4.21 polyvinyl alcohol fiber in Table 1 into two types, acetalized

and un-acetalized; ADJUST the vinylon to the abbreviation of acetalized polyvinyl alcohol fiber (see Table 1; Table 1 of the 2009 edition);

- ADD the name of the bicomponent composite fiber (see Chapter 5);
- ADJUST the Table 2 and Table 3 in the 2009 edition to Appendix D and Appendix E, respectively (see Appendix D and Appendix E; Table 2 and Table 3 in the 2009 edition).

This part uses the redrafting method to modify and adopt ISO 2076:2013 "Textiles - Man-made fibers - Part 1. Generic names".

The technical differences between this part and ISO 2076:2013 and the reasons are as follows.

- In Chapter 1, ADD the scope of application of the standard;
- DELETE the lowercase requirements for English and French generic names in 3.2;
- In Table 1, ADD the generic names, symbols, main properties, chemical formulas of 6 chemical fibers. chitosan fiber, ultra-high molecular weight polyethylene fiber, polyester fiber, silicon carbide fiber, polyhydroxyalkanoate fiber, polyarylate fiber;
- DIVIDE the 4.21 polyvinyl alcohol fiber in Table 1 into two types. acetalized and un-acetalized;
- MOVE the polypropylene/polyamide composite fibers in Table 1 to Table 2; ADD polyethylene/polypropylene composite fibers and 2 different composite structures of polyester/polyamide composite fibers in Table 2;
- ADD the abbreviations of some chemical fibers in Table 1; DELETE the "Other names" column in Table 1.

This part also made the following editorial changes.

- In order to be consistent with the existing standard series, CHANGE the standard name to "Textiles - Man-made fibers - Part 1. Generic names";
- DELETE the note in 2.1; ADD the "chemical fiber" in the note to the English

name of the term "chemical fiber";

- In Appendix B, ADD the structure and example diagrams of split

bicomponent composite fibers;

- DELETE the Table F.1 The generic names of fibers that differ from the ISO standards in China; ADJUST the numbers of other Tables in Appendix F in turn.

This part was proposed by the China National Textile and Apparel Council.

This part shall be under the jurisdiction of the National Textile Standardization Technical Committee (SAC/TC 209).

Drafting organizations of this part. China Chemical Fiber Industry Association, Textile Industry Standardization Research Institute, Sinopec Yizheng Chemical Fiber Co., Ltd., Jiangsu Guowang Hi-Tech Fiber Co., Ltd., Shandong Yingli Industrial Co., Ltd., Zhejiang Huilong New Material Co., Ltd., Tangshan Sanyou Group Xingda Chemical Fiber Co., Ltd., Jinjiang Yuanxiang Garment Weaving Co., Ltd., China Textile Research Institute Co., Ltd., PepsiCo (Qingdao) Co., Ltd., Shanghai Haikai Biomaterials Co., Ltd., Xinxiang Chemical Fiber Co., Ltd., Wuxi Suo Leader Technology Development Co., Ltd., Donghua University.

1 Scope

This part of GB/T 4146 lists the generic names and main properties of various chemical fibers that are currently industrially produced for textile and other purposes and based on major polymers.

2 Terms and definitions

The following terms and definitions apply to this document.

Except for natural fibers, the fibers artificially manufactured.

3 General

Use 2 to 4 specific letters to facilitate the naming of various chemical fibers in sales and technical literature. In some cases, the symbol system for textile

fibers is different from the symbol system for plastics.

Represents the chemical structure of the fiber. In some cases, multiple fibers may have the same chemical formula. For example, cupro, lyocell, modal, viscose fibers are all represented by cellulose II, so an example of a chemical formula does not only represent a certain fiber.

4 Generic names

The generic names of chemical fibers are as shown in Table 1.

Cellulose acetate fiber, in which at least 92% of the hydroxyl groups are acetylated
Cellulose triacetate.

5 Name of the bicomponent composite fiber

Polyethylene/polypropylene bicomponent Polyethylene (4.17) and polypropylene (4.19)
Shell-core type (Sh/C)

Polypropylene/polyamide bicomponent Polypropylene (4.19) and polyamide (4.15) Matrix
fiber type (M/F)

Polyethylene/polyester bicomponent Polyethylene (4.17) and polyethylene terephthalate
(4.16) Shell-core type (Sh/C)

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