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

GB/T 5713-2013

**Textiles -- Tests for colour fastness -- Colour fastness to water
(English Translation)**

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Foreword

This Standard is drafted according to the rules specified in GB/T 1.1-2009.

This Standard replaces GB/T 5713-1997 "Textiles - Tests for colour fastness - Colour fastness to water". Compared with GB/T 5713-1997, the main changes in this Standard are as follows.

- In Chapter 2 "Normative References", replace the obsolete standards GB 7564 - 7568-1987 and GB 11404-1989 with GB/T 7568.1 - 7568.7; add GB/T 6682, GB/T 13765, FZ/T 01023 and FZ/T 01024; GB/T 6151 is changed into undated reference;
- Chapter 4 of the original standard is divided into 2 chapters - Chapter 4 "Apparatus " and Chapter 5 "Reagents";
- In 4.1, add the provision - a pressure of (12.5 ± 0.9) kPa can be applied by the test device on test specimens;
- In 4.3, reference of adjacent fabrics reference standard is changed from "according to 8.2 of GB/T 6151-1997" into "see GB/T 6151";
- In Table 1 of 4.3.2, single-fibre adjacent fabrics of cellulose acetate and cellulose triacetate are deleted;

- In 4.3.2, add "Note. Other types of fibres may be referred to homogeneous or similar fibres";
- In Chapter 4, add spectrophotometer (4.6), analytical balance (4.7) and a set of

11 glass or acrylic resin plates (4.8);

- In Chapter 6, test specimen size is changed into (40 ± 2) mm x (100 ± 2) mm;
- In 7.1, specify the composite specimen liquor ratio of 50:1 and thoroughly wet for 30 min;
- In the note of 7.1, add "If less than 10 specimens are prepared, all 11 plates must still be used to maintain the correct nominal pressure";
- In 7.2, position of the test specimens is changed into the horizontal position or the vertical position, depending on the type of device available;
- In 7.4, add the optional assessment method for the change in colour of each specimen or the staining of adjacent fabric(s) instrumentally;
- In Chapter 8, add item f); and add instrumental assessment result and rating method explanation in item c).

Adopting re-drafting method, this Standard modifies and adopts ISO 105-E01:2013 "Textiles - Tests for colour fastness - Part E01: Colour fastness to water" (English edition). Compared with ISO 105-E01:2013, the main differences in this Standard are as follows.

- Foreword of the international standard is deleted;
- International standards in Chapter 2 "Normative References" are replaced by the corresponding national standards and industry standards of China; GB/T

13765 is added;

- Add standard adjacent fabric hemp in Table 1 of 4.3.2;
- In 4.3.2, add "Note. Other types of fibres may be referred to homogeneous or similar fibres".

This Standard was proposed by China National Textile and Apparel Council.

This Standard shall be under the jurisdiction of the Basic Standard Subcommittee of

Technical Committee 209 on Textiles of Standardization Administration of China (SAC/TC 209/SC 1).

Chief drafting organizations of this Standard. Standardization Research Institute of Textile Industry, Shanghai Textile Industry Institute of Technical Supervision, and Shanghai Wool & Jute Textile Research Institute.

Chief drafting staffs of this Standard. Liu Lin, Chen Xiaocheng, and Zhu Jie.

The historical editions replaced by this Standard are as follows.

- GB/T 5713-1985, GB/T 5713-1997.

Textiles - Tests for Colour Fastness -

Colour Fastness to Water

1 Scope

This Standard specifies a method for determining the colour fastness to water of the colour of all kinds of textiles.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 250 Textiles -- Tests for colour fastness - Grey scale for assessing change in colour (GB/T 250-2008, ISO 105-A02.1993, IDT)

GB/T 251 Textiles - Tests for colour fastness - Grey scale for assessing staining (GB/T 251-2008, ISO 105-A03.1993, IDT)

3 Principle

A specimen of the textile in contact with either two single-fibre adjacent fabrics or a multifibre adjacent fabric is immersed in water, drained and placed between two plates under a specified pressure in a test device. The specimen and the adjacent fabric(s) are dried separatel

4 Apparatus

The first piece shall be made of the same kind of the fibre as that of the textile to be tested. The second piece shall be made of the fibre as indicated in Table 1. If the test specimen is a blending or intertexture, then the first piece shall be made of main content of fiber; and the second piece shall be made of secondary content of fiber or as otherwise specified.

6 Test Specimen

mass is approximately equal to one-half of the combined mass of the adjacent fabrics.

Prepare the composite specimen according to 1 of the following methods.

- a) Place it between a (40 ± 2) mm x (100 ± 2) mm piece of the multifibre fabric and a (40 ± 2) mm x (100 ± 2) mm piece of the non-dyeable fabric (4.5.3).
- b) Place it between 2 single-fibre adjacent fabrics with specification of (40 ± 2) mm x (100 ± 2) mm. Sew along all four sides.

7 Operating Procedure

Place the composite specimen between the two glass plates or acrylic-resin plates (see 4.8), so as it is under a nominal pressure of (12.5 ± 0.9) kPa. Place in the test device (4.1) which has been preheated to the test temperature.

Note: Up to 10 test specimens, each separated from the next by one plate, can be tested in one test device simultaneously. If less than 10 specimens are prepared, all 11 plates must still

be used to maintain the correct nominal pressure.

8 Test Report

The test report shall include the following information.

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