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

GB/T 3922-2013

**Textiles -- Tests for colour fastness -- Colour fastness to
perspiration**

(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 3922-1995 "Textiles - Testing method for colour fastness to perspiration". Compared with GB/T 3922-1995, the main changes in this Standard are as follows.

- Standard name is changed to "Textiles - Tests for colour fastness - Colour fastness to perspiration";
- In Chapter 2 "Normative Reference", add GB/T 6682, GB/T 13765, FZ/T 01023 and FZ/T 01024; GB 7546 to GB 7568 and GB 11401 are replaced by GB/T

7568.1 - GB/T 7568.7;

- Add the allowable tolerance for the pressure of test device;
- Add the second and third paragraphs in 4.1;
- The requirements of "no ventilating device" are deleted;
- Chapter 6 "Test Solution Preparation" of the original standard is integrated into Chapter 4; and the chapter and article numbers thereafter are extended accordingly;
- Distilled water used for test solution preparation is changed into Grade 3 water;
- Add the allowable tolerance of pH value of test solution;

- Series numbers of articles in Chapter 4 are adjusted; add 4.8 - 4.13;
- Add the note in 6.1;
- Add the position and schematic diagram of composite specimens in 6.2;
- Add the second and the optional assessment method (instrument) in 6.4;
- Test report is changed into inclusion of items; add items a), b) and f), as well as the types of multifibre adjacent fabrics;
- Appendix A and Appendix B are deleted.

Using re-drafting method, this Standard modifies and adopts ISO 105-E04.2013 "Textiles - Tests for colour fastness - Part E04.Colour fastness to perspiration" (English edition). Compared with ISO 105-E04.2013, 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;
- Reagents used in 4.3 and 4.4 are specified as chemically pure;
- Add 4.11 to 4.13;
- Preparation requirements of composite specimens of printing fabrics are added in 5.1.

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).

Drafting organizations of this Standard. Shanghai Textile Industry Institute of Technical Supervision, Standardization Research Institute of Textile Industry, Shanghai Wool & Jute Textile Research Institute and Shanghai Silk Group Co., Ltd.

Chief drafting staffs of this Standard. Chen Xiaocheng, Liu Yunjin, Si Ying, Wang

Jiqiang, and Zhu Yicheng.

The historical editions replaced by this Standard are as follows.

- GB/T 3922-1983, GB/T 3922-1995.

Textiles - Tests for Colour Fastness -
Colour Fastness to Perspiration

1 Scope

This Standard specifies a method for determining the colour fastness to perspiration 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

Specimens of the textile in contact with adjacent fabrics are treated in two different solutions - acidic and alkaline solutions containing histidine.

4 Apparatus and Materials

All reagents used shall be chemically pure; freshly prepared; using grade 3 water that complies with GB/T 6682; per litre containing.

For assessing change in colour and staining, complying with FZ/T 01023 and FZ/T 01024.

5 Test Specimen

a) Attach a specimen 100 mm x 40 mm to a piece 100mmx40mm of the multifibre adjacent fabric (5.5.1). Sew along one of the shorter edges, with the multifibre adjacent fabric next to the face side of the specimen;

6 Operating Procedure

Adopting the same procedure, wet a composite specimen in the acid solution at pH

5.5 (± 0.2) (4.4). Then test it in a separate pre-heated test device.

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.

Open out each composite specimen (by breaking the stitching except on one of the shorter sides, if necessary). Dry it by hanging it in air at a temperature not

In many cases of cellulosic fibres dyed with direct dyes containing copper, or after treatment with copper salts, the prescribed tests and natural perspiration bring about a removal of copper from the dyeings.

7 Test Report

The test report shall include the following information.

- a) serial number of this Standard;
- b) all details of the sample tested;

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