



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

GB/T 5714-2019

**Textiles - Tests for colour fastness - Colour fastness to sea
water**

Issued on: August 30, 2019

Implemented on: March 1, 2020

Issued by: SAMR; SAC

Table of Contents

Foreword...	3
1 Scope...	6
2 Normative References...	6
3 Principle...	7
4 Equipment and Materials...	7
5 Specimen...	9
6 Test Procedures...	10
7 Test Report...	11
Bibliography...	12

Foreword

This Standard was drafted as per the rules specified in GB/T 1.1-2009.

This Standard replaced GB/T 5714-1997 Textiles - Tests for Color Fastness - Color Fastness to Sea Water. Compared with GB/T 5714-1997, this Standard has the major changes as follows:

- Add "this Standard is applicable to various kinds of textiles" to the scope (see Clause 1 of this Edition);
- Add the references of GB/T 6682, GB/T 13765, GB/T 32598 and GB/T 32616; separately modify GB 250-1995, GB 251-1995 and GB/T 6151-1997 into GB/T 250, GB/T 251 and GB/T 6151-2016; adjust GB 7564~7568-1987 into GB/T 7568.1~GB/T 7568.6; adjust GB 11404-1989 into GB/T 7568.7 (see Clause 2 of this Edition; Clause 2 of 1997 Edition);
- Add the description of using instruments to assess the discoloration of the sample and the staining of the lining fabric (see Clause 3 of this Edition);
- Modify the title of Clause 4 from "equipment and reagents" into "equipment and materials" (see Clause 4 of this Edition; Clause 4 of 1997 Edition);
- Add tolerances to the specimen dimension and the pressure of the specimen

device; adjust "other devices with equivalent test results can also be used" from the NOTE to the text (see 4.1 of this Edition; 4.1 of 1997 Edition);

--- Adjust "GB/T 6151-1997, 8.1" into "GB/T 6682"; add the requirements of "taking sodium chloride as chemically pure or above"; add the NOTE of "sodium chloride solution shall be prepared for current use" (see 4.3 of this Edition; 4.3 of 1997 Edition);

--- Add the NOTE of "other types of fibers can be used with reference to the same or similar fibers" (see 4.4.2 of this Edition);

--- Delete the standard lining fabric of acetate or triacetate fiber (see Table 1 of this Edition; Table 1 of 1997 Edition);

--- Adjust the contents of 4.5 into 4.5 and 4.6 (see 4.5 and 4.6 of this Edition; 4.5 of

1997 Edition);

--- Add 4.7, 4.8, 4.9 and 4.10 (see 4.7, 4.8, 4.9 and 4.10 of this Edition);

--- Add the tolerance of specimen dimension (See Clause 5 of this Edition);

---Add the requirements of "bath ratio of about 50:1" and "stand at the room

Textiles - Tests for Color Fastness -

Color Fastness to Sea Water

1 Scope

This Standard specifies the methods for testing the color fastness to sea water for various textiles.

This Standard is applicable to various textiles.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this document.

GB/T 250 Textiles - Tests for Color Fastness - Grey Scale for Assessing Change

in Color (GB/T 250-2008, ISO 105-A02:1993, IDT)

GB/T 251 Textiles - Tests for Color Fastness - Grey Scale for Assessing Staining

(GB/T 251-2008, ISO 105-A03:1993, IDT)

GB/T 6151-2016 Textiles - Tests for Color Fastness - General Principle of Testing

(GB/T 6151-2016, ISO 105-A01:2010, MOD)

GB/T 6682 Water for Analytical Laboratory Use - Specification and Test Methods

(GB/T 6682-2008, ISO 3696:1987, MOD)

GB/T 7568.1 Textiles - Tests for Color Fastness - Specification for Wool Adjacent Fabric (GB/T 7568.1-2002, ISO 105-F01:2001, MOD)

GB/T 7568.2 Textiles - Tests for Color Fastness - Standard Adjacent Fabrics - Part 2: Cotton and Viscose Fiber (GB/T 7568.2-2008, ISO 105-F02:2009, NEQ)

GB/T 7568.3 Textiles - Tests for Color Fastness - Standard Adjacent Fabrics - Part 3: Polyamide (GB/T 7568.3-2008, ISO 105-F03:2001, MOD)

GB/T 7568.4 Textiles - Tests for Color Fastness - Specification for Polyester Adjacent Fabric (GB/T 7568.4-2002, ISO 105-F04:2001, MOD)

GB/T 7568.5 Textiles - Tests for Color Fastness - Specification for Acrylic Adjacent Fabric (GB/T 7568.5-2002, ISO 105-F05:2001, MOD)

GB/T 7568.6 Textiles - Tests for Color Fastness - Specification for Silk Adjacent Fabric (GB/T 7568.6-2002, ISO 105-F06:2000, MOD)

GB/T 7568.7 Textiles - Tests for Color Fastness - Standard Adjacent Fabrics - Part 7: Multifiber (GB/T 7568.7-2008, ISO 105-F10:1989, MOD)

GB/T 13765 Textiles - Tests for Color Fastness - Specification for Standard Adjacent Fabric of Linen and Ramie

GB/T 32598 Textile - Tests for Color Fastness - Method for the Instrumental Assessment of Staining of Adjacent Fabrics (GB/T 32598-2016, ISO 105-A04:1989, MOD)

GB/T 32616 Textiles - Tests for Color Fastness - Instrumental Assessment of Change in Color for Determination of Grey Scale Rating (GB/T 32616-2016, ISO

105-A05:1996, MOD)

3 Principle

Use a piece of textile specimen to make combined specimen with two pieces of single fiber lining fabrics and one pieces of multi-fiber lining fabric; dip it into the sodium chloride solution; extrude excessive solution and place it in middle of the two plates of the test device; so that it can withstand the specified pressure. The specimen and lining fabric shall be dried separately. Use the grey scale or instrument to assess the discoloration of the specimen and staining of the lining fabric.

4.1 Test device

It consists of a pair of stainless-steel-frame and a 5kg-weighted heavy punch with a bottom size of 60mmx115mm; and attached with glass plate or acrylic resin plate with size of 60mmx115mmx1.5mm. When clamping the combined specimen with size of $(40\pm 2)\text{mm}\times(100\pm 2)\text{mm}$ in between the plates, so that the combined specimen can withstand the pressure of $(12.5\pm 0.9)\text{kPa}$. The test device shall ensure that the pressure that the combined specimen withstands after the heavy punch is removed shall remain unchanged.

If the size of the combined specimen is not $(40\pm 2)\text{mm}\times(100\pm 2)\text{mm}$; the nominal pressure that the heavy punch applied to the specimen shall be $(12.5\pm 0.9)\text{kPa}$.

.....