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Replacing GB/T 18886-2002

Textiles - Tests for colour fastness - Colour fastness to saliva

纺织品 色牢度试验 耐唾液色牢度

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1 Scope

This Standard specifies the test method for the determination of the colour fastness to saliva of textiles.

This Standard applies to all kinds of textiles.

2 Normative references

The following documents are indispensable for the application of this document. For the dated references, only the editions with the dates indicated are applicable to this document. For the undated references, the latest edition (including all the amendments) are applicable to this document.

GB/T 250 Textiles - Tests for colour fastness - Grey scale for assessing change in colour

GB/T 251 Textiles - Tests for colour fastness - Grey scale for assessing staining

GB/T 6151 Textiles - Tests for colour fastness - General principle of testing

GB/T 6682 Water for analytical laboratory use - Specification and test methods

GB/T 7568.1 Textiles - Tests for colour fastness - Specification for wool adjacent fabric

GB/T 7568.2 Textiles - Tests for colour fastness - Standard adjacent fabrics - Part 2: Cotton and viscose

GB/T 7568.3 Textiles - Tests for colour fastness - Standard adjacent fabrics - Part 3: Polyamide

GB/T 7568.4 Textiles - Tests for colour fastness - Specification for polyester adjacent fabric

GB/T 7568.5 Textiles - Tests for colour fastness - Specification for acrylic adjacent fabric

Other devices which can achieve the same result can be used.

4.2 Thermostat

KEEP the temperature at (37±2) °C.

4.3 Artificial saliva

4.3.1 Formula composition

The reagents used are chemically pure. USE Grade 3 water (4.12) to prepare the test solution. Prepared when used.

Each liter of test solution contains:

Magnesium chloride hexahydrate ($MgCl_2 \cdot 6H_2O$)	0.17 g
Calcium chloride dihydrate ($CaCl_2 \cdot 2H_2O$)	0.15 g
Dipotassium hydrogen phosphate trihydrate ($K_2HPO_4 \cdot 3H_2O$)	0.76 g
Potassium carbonate (K_2CO_3)	0.53 g
Sodium chloride (NaCl)	0.33 g
Potassium chloride (KCl)	0.75 g

USE hydrochloric acid solution with a mass fraction of 1% to adjust the pH of the test solution to 6.8±0.1.

4.3.2 Preparation method

DISSOLVE the prescribed amount of sylvite and sodium salts in 900 mL of Grade 3 water (4.12); ADD magnesium chloride and calcium chloride and stir until they are completely dissolved. Immerse the calibrated pH meter (4.11) electrode in the solution; ADD slowly 1% hydrochloric acid solution; STIR gently to make the solution pH reach 6.8±0.1. ADD Grade 3 water (4.12) to dilute to 1000 mL; SHAKE well and store in the dark.

4.4 Adjacent fabric (See GB/T 6151)

Choose any one of 4.4.1 and 4.4.2.

4.4.1 A multifibre adjacent fabric shall conform to GB/T 7568.7.

4.4.2 Two single-fibre adjacent fabrics shall conform to GB/T 7568.1~7568.6, GB/T 7568.8, GB/T 13765.

a) TAKE a piece of sample of (100±2)mm×(40±2)mm; CONTACT the front to a piece of (100±2)mm×(40±2)mm multifibre adjacent fabric (4.4.1). Sew along a short side to form a combined sample.

b) TAKE a piece of sample of (100±2)mm×(40±2)mm and sandwich it between two (100±2)mm×(40±2)mm single-fibre adjacent fabrics (4.4.2). Sew along a short side to form a combined sample.

5.2 For yarn or loose-fibre samples, the mass of yarn or loose fibre taken is approximately equal to half the total mass of the adjacent fabric. According to one of the following methods, prepare a combined sample:

a) SANDWICH it between a piece of (100±2)mm×(40±2)mm multifibre adjacent fabric and a piece of (100±2)mm×(40±2)mm non-dyeable fabric (4.4.3). Sew along the four sides (See GB/T 6151) to form a combined sample.

b) SANDWICH it between two prescribed (100±2)mm×(40±2)mm single-fibre adjacent fabrics. Sew along the four sides to form a combined sample.

6 Operating procedures

6.1 At room temperature, the combined sample is placed flat in a flat-bottomed container (4.10). Inject artificial saliva (4.3) to completely wet it at a bath ratio of 50:1. PLACE it at room temperature for 30 min. From time to time, PRESS down and stir, to ensure that the test solution can penetrate fully and evenly. TAKE the sample out; POUR off residual solution; USE a suitable method (such as two glass rods) to clip the excess test solution off the combined sample.

The combined sample is placed flat between two glass or acrylic acid resin plates (4.9) and placed in test devices (4.1) to be pressurized (12.5±0.9)kPa.

Note: A maximum of 10 combined samples can be placed simultaneously for each test device. Each sample is separated by a plate (11 pieces in total). If less than 10 samples, 11 plates are still used, to keep the pressure constant.

6.2 PLACE the test devices (4.1) with the combined sample in the thermostat (4.2); HOLD at (37±2)°C for 4 h; PLACE the test devices (4.1) horizontal (Figure 1) or vertical (Figure 2).

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