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

GB/T 7573-2025

**Textiles - Determination of pH of aqueous extract
(English Translation)**

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Foreword

This document was drafted in accordance with the provisions of GB/T 1.1-2020

"Directives for standardization - Part 1.Rules for the structure and drafting of standardizing documents".

This document replaces GB/T 7573-2009 " Textiles - Determination of pH of aqueous extract". Compared with GB/T 7573-2009, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- ADD examples of various textile products "(such as fibers, yarns, fabrics, down and other fillings)" (see Chapter 1);
- ADD "or directly purchased" (see 5.3);
- DELETE "filled with distilled water when not in use, the same below." (see 6.1 of the 2009 edition);
- DELETE "6.5 measuring cylinder. 100 mL, chemically stable" (see 6.5 of the 2009

edition);

- CHANGE "measurement accuracy of at least 0.1" to "resolution of at least 0.01 pH unit" (see 6.5; 6.6 of the 2009 edition);
- ADD "thermometer" (see 6.8);
- ADD the size requirement "or a size that allows the sample to be wetted quickly" (see 7.1);
- CHANGE "avoid contamination and direct contact with the sample by hand" into that "avoid contamination of the specimen during specimen preparation";
- CHANGE "prepare 3 parallel samples for each test sample" to "prepare 2 specimens for each test sample" (see 7.2; 7.2 of the 2009 edition);
- CHANGE "100 mL of water (5.1) or potassium chloride solution (5.2)" into "100 mL of potassium chloride (KCl) solution (5.2)" (see 8.1; 8.1 of the 2009 edition);
- ADD "If an electrode without temperature compensation is used, use a thermometer (6.8) to measure and record the temperature of the extract"; CHANGE the three parallel samples in the test process to 2 specimens. (See 8.2; 8.2 of the 2009 edition);
- DELETE "Using water (5.1) as the extraction medium. Reproducibility limit R =

1.7 pH units." (See Chapter 10 of the 2009 edition);

- DELETE "Extraction medium used (water or potassium chloride solution)" [See Chapter 11 d) of the 2009 edition].

This document modifies and adopts ISO 3071.2020 "Textiles - Determination of pH of aqueous extract".

The technical differences between this document and ISO 3071.2020 and their reasons are as follows.

- ADD the example of "filling materials such as down" to the Scope (see Chapter 1; Chapter 1 of ISO 3071.2020) for easy understanding;
- USE the normative reference GB/T 6682 to replace the informative reference ISO

3696 (see 5.1; 5.1 of ISO 3071.2020) for easy understanding;

- CHANGE the frequency of the mechanical oscillator from "is suitable" to "at least" (see 6.2; 6.2 of ISO 3071.2020) for easy understanding;
- ADD the thermometer (see 6.8) for easy operation;
- CHANGE that "The pH meter is calibrated with two buffer solutions at the temperature of the extract" into that "The pH meter is calibrated with two or three buffer solutions at the temperature of the extract" (see 8.2; 8.2 of ISO 3071.2020), for easy operation;
- ADD "b) Sample description" to the test report for easier understanding (see Chapter 11).

1 Scope

This document describes the method for determining the pH value of aqueous extracts of textiles.

This document is applicable to various textile products (such as fibers, yarns, fabrics, down and other fillings).

2 Normative references

The contents of the following documents constitute the essential terms of this document through normative references in the text. Among them, for dated references, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies to this document.

GB/T 6682 Water for analytical laboratory use - Specification and test methods (GB/T 6682-2008, ISO 3696.1987, MOD)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

pH value

The negative logarithm of the hydrogen ion concentration in the aqueous extract.

4 Principle

The pH value of the aqueous extract of the textile is determined at room temperature using a pH meter with a glass electrode.

5 Reagents

Distilled or deionized water, at least meeting the requirements of GB/T 6682 Grade

6 Instruments

Stoppered glass or polypropylene flask. 250 mL, chemically resistant.

Mechanical oscillator. Capable of rotating or reciprocating to ensure sufficient liquid exchange between the sample and the extract, with a reciprocating rate of at least

7 Specimen preparation

Select representative laboratory samples from the batch of large samples, the number of which shall meet the amount required for all tests.

8 Measurement steps

Prepare the extracts of two specimens at room temperature. Add one set of specimen to a stoppered flask (6.1); measure 100 mL of potassium chloride (KCl) solution (5.2); cover the flask tightly; shake it for a while to make the sample completely wet. Place the flask on a mechanical oscillator (6.2) and oscillate for $2\text{ h} \pm 5\text{ min}$.

9 Calculation and expression of results

If the difference between two pH measurement values (accurate to 0.1) is greater than

0.2 pH units, take another specimen and retest until two valid measurement values are

obtained; calculate their average value; retain one decimal place.

9 laboratories jointly tested 7 specimens and obtained the following results after

statistical analysis.