

ICS 59.140.30

QB

**LIGHT INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

QB/T 2724-2018

**Leather. Chemical tests. Determination of pH
(English Translation)**

Issued on: December 21, 2018

Implemented on: July 1, 2019

Issued by: Ministry of Industry and Information Technology of PRC

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces QB/T 2724-2005 "Leather - Chemical tests -

Determination of pH".

Compared with QB/T 2724-2005, the main technical differences between this standard and QB/T 2724-2005 are as follows except for editorial changes:

- In "4 Principles", ADD an explanation of when the difference figure needs to be measured;
- CHANGE the graduation of the pH meter from 0.05 pH unit in the original standard to 0.01 pH unit;
- In "6.3 Analytical balance", CHANGE the accuracy from 0.05 g to 0.1 mg, which is consistent with international standards;
- In 6.4.1, CHANGE the specification of the wide-mouth flask from 100 mL to

250 mL, which meets the test requirements and is consistent with

international standards;

- In "7.1 Sampling", CLARIFY the addition of the requirements of "parallel double sampling determination";
 - In "8.1 Preparation of extract", CHANGE the shaking time to 6.0 h ~ 6.5 h, which is consistent with international standards;
 - DEFINE the "8.2 pH measurement" in the original standard into "8.2.1 pH meter calibration" and "8.2.2 pH measurement";
 - CHANGE the measurement temperature in "8.2.2 pH measurement" from $(20 \pm 1) ^\circ\text{C}$ to $(20 \pm 2) ^\circ\text{C}$, which is consistent with international standards.
- This standard adopts the redrafting method to modify and adopt ISO 4045:2008 "Leather - Chemical tests - Determination of pH". The method used in ISO 4045:

2008 is based on the method standard IUC 11 of the International Federation

of Leather Craftsmen and Chemists (IULTCS).

Compared with ISO 4045:2008, this standard has many adjustments in its structure. Appendix A lists the comparison list of changes in article numbers compared with ISO 4045:2008.

Compared with ISO 4045:2008, there are technical differences between this standard. The clauses involved in these differences have been marked by a vertical single line (|) on the outer margin of the standard. The list of
Leather - Chemical tests - Determination of pH

1 Scope

This standard specifies the method for measuring the pH and difference figure of leather's water extract.

This standard applies to all types of leather.

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) is applicable to this standard.

GB/T 6682 Water for analytical laboratory use - Specification and test methods (GB/T 6682-2008, ISO 3696:1987, MOD)

QB/T 2706 Leather - Chemical physical and mechanical and fastness tests - Sampling location (QB/T 2706-2005, ISO 2418:2002, MOD)

QB/T 2716 Leather - Preparation of chemical test samples (QB/T 2716-2018, ISO 4044:2008, MOD)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Difference figure

The difference between the pH of the solution and the pH of the solution after

10 times dilution.

Note: The difference figure is a measure of the strength of acid and alkali; its value will not exceed 1. When the solution contains free strong acid (or free strong base), the value of the difference figure is 0.7 ~ 1.0. The ionization of weak acid and weak base increases with the dilution of the solution, so the difference figure can only be used as a criterion for the judgement of presence of free strong acid or free strong base in the water extraction

Note: All glass instruments shall be made of low alkaline glass. Before use, use distilled water for a blank test. The pH and conductivity shall be within the range specified in 5.1 before and after the test. It should use polyethylene and borosilicate glass.

7.1 Sampling

It is performed according to the provisions of QB/T 2706. If it is not possible to take samples from standard parts (such as direct samples from shoes and

clothing), the sampling situation shall be recorded in detail in the test report.

Perform parallel double sampling and determination.

7.2 Preparation of specimens

It is performed according to the provisions of QB/T 2716.

8.1 Preparation of extract

Weigh (5 ± 0.1) g of the specimen in a wide-mouth flask (6.4.1). Add (100 ± 1) mL of distilled water or deionized water (5.1) at a temperature of (20 ± 2) °C.

Use hands to shake it thoroughly for about 30 s. After the specimens are all wetted, add the stopper and place it on the oscillator (6.1) to oscillate it for 6.0 h ~ 6.5 h. Take it off. Stand still. Transfer the extract. If the extract is muddy and difficult to transfer, it can be filtered by a clean, dry, non-adsorbing screen (such as nylon cloth or rough sintered glass funnel), or centrifuged.

8.2.1 Calibration of pH meter

Use two standard buffer solutions lower than and higher than the pH of the solution to be tested, respectively, to calibrate the pH meter. After calibration, the readings of the two buffer solutions shall be accurate to within 0.01 pH unit.

8.2.2 Determination of pH

Adjust the temperature of the specimen extract (8.1) to (20 ± 2) °C. After shaking uniformly, use a pH meter (6.2) to measure the pH of the extract immediately. Once the reading is stable, immediately record the reading to the nearest 0.01 pH unit. The reading shall be taken within 30 s ~ 60 s after the electrode is immersed in the extract.

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