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

GB/T 47488-2026

**Leather - Physical and mechanical tests - Determination of
shrinkage temperature**

皮革 物理和机械试验 收缩温度的测定

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is modified to adopt ISO 3380:2015 "Leather - Physical and mechanical tests - Determination of shrinkage temperature at 100°C and below".

Compared with ISO 3380:2015, this document has undergone many structural adjustments. A comparison table of the structural numbering changes between the two documents can be found here.

Appendix A.

This document differs significantly from ISO 3380:2015 in several technical aspects. The relevant clauses are indicated in vertical single-line margins.

The lines (|) are marked. A summary of these technical differences and their causes can be found in Appendix B.

The following editorial changes have been made to this document.

---To harmonize with existing standards, the standard title has been changed to "Determination of Shrinkage Temperature in Physical and Mechanical Testing of Leather";

---A new heading has been added to "Sampling and Sample Preparation";

---Informative Appendix A, "Source of Instruments," has been deleted.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China National Light Industry Council.

This document is under the jurisdiction of the National Technical Committee on Standardization of Leather Industry (SAC/TC252).

1 Scope

This document describes the test method for determining the shrinkage temperature of leather.

This document applies to the determination of shrinkage temperature for various types of leather.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 6682 Specifications and test methods for water used in analytical laboratories (GB/T 6682-2008, ISO 3696:1987, MOD) GB/T 39364 Sampling sites for testing the chemical, physical, mechanical and color fastness of leather (GB/T 39364-2020, ISO 2418.

2017, MOD)

GB/T 45705 Physical and mechanical tests of leather - Determination of thickness (GB/T 45705-2025, ISO 2589:2016, MOD) QB/T 2262 Leather Industry Terminology

3 Terms and Definitions

The terms and definitions defined in QB/T 2262 and the following terms and definitions apply to this document.

Shrinkage temperature the temperature of the medium at which the leather sample begins to shrink noticeably in a slowly heated medium is the shrinkage temperature of the leather.

Note 1: The medium is usually water or glycerin.

Note 2: Shrinkage temperature is closely related to the degree of tanning of leather and is usually represented by Ts. It is an important indicator of the leather's resistance to humid heat.

4 Principles

Place the sample in a medium (water or glycerol), heat the medium at a specified rate until the sample shrinks significantly, and record the temperature at this point.

The shrinkage temperature of the sample is the temperature at which the sample shrinks.

5.1 Shrinkage Temperature Tester

Figure 1 shows a schematic diagram of the layout of the various parts of the tester, including the parts described below.

--- Containers with a volume of not less than 500mL and a working depth of not less than 110mm can be used at temperatures exceeding 100°C.

---The sample holder, such as a pin or clip, is placed (30 ± 5) mm above the bottom of the container.