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

GB/T 22890.2-2024

**Leather - Determination of water resistance of flexible leather -
Part 2: Repeated angular compression(Maeser)
(English Translation)**

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Table of Contents

Foreword
Introduction
1 Scope
2 Normative references
3 Terms and definitions
4 Principle
5 Equipment, reagents and materials

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is part 2 of GB/T 22890 "Determination of water resistance of soft leather". GB/T 22890 has been published the following parts.

- Part 1: Repeated linear compression method (penetrometer method);
- Part 2: Repeated angular compression method (Mezer method).

This document is modified from ISO 5403-2:2011 "Leather - Determination of water resistance of leather - Part 2: Repeated angular compression method (Mei Zefa)".

Compared with ISO 5403-2:2011, this document has many structural adjustments. A comparison of the structural number changes between the two documents See Appendix A for the table.

The technical differences between this document and ISO 5403-2:2011 and their reasons are as follows.

- Added the description of the determination of water absorption of the sample in the "Principle" (see Chapter 4), which corresponds to the standard content;
- Changed the dimension marking in Figure 1 (see Figure 1) to make it consistent with the text description;
- Adjust the description of the specimen size and V-shaped fixture to the note of "die knife" (see 5.2), which conforms to the writing practice of my country's standards Habit, easy to understand;

- Regarding the requirements for die cutter and specimen air conditioning, the normative reference QB/T 2707 replaces ISO 2419 (see 5.2 and 6.3) to adapt to my country's technical conditions and facilitate use;
- Regarding the requirements for test water, the normative reference GB/T 6682 replaces ISO 3696:1987 (see 5.3) to adapt to our the technical conditions of the country are convenient for use;
- Adjust the notes on cleaning agents to the corresponding text (see 5.6) to conform to Chinese customs and facilitate understanding;
- Changed the requirements for sandpaper, and deleted the description of its type regulations in foreign regions (see 5.7), which does not affect the understanding and use;
- Changed the accuracy requirements for analytical balances (see 5.9) to be consistent with relevant standards;
- Regarding the requirements for sampling locations, the normative reference GB/T 39364 replaces ISO 2418 (see 6.1 and 10 Chapter) to adapt to my country's technical conditions and facilitate use;
- Added provisions for sampling of non-standard parts (see 6.1) to meet the needs of daily testing;
- Changed the relevant description of the sample marking direction (see 6.2) to facilitate the understanding of the standard;
- Increased the accuracy requirements for sample weighing operations (see 6.3) to make the test results more accurate;
- Changed the description of the friction direction of sandpaper on the specimen (see Chapter 7) to avoid ambiguity and facilitate understanding;
- Adjust the explanation of friction or folding treatment in Chapter 6 to Note (see Chapter 7), which is in line with the standard practice of my country and convenient for understand;
- Changed the weighing accuracy of the sample when measuring water absorption (see 8.16) to be consistent with the relevant standards;
- Added the way to express the permeability results when the penetration occurs during the inspection interval (see 9.2) for easier understanding.

The following editorial changes were made to this document.

- The description of the testing machine is changed to a list form;
- The description of the electronic detection system is changed to a list form;
- ISO 5403-1 and ISO 5402-1 were replaced by informative references GB/T 22890.1 and QB/T 2714 respectively.

Introduction

In the leather production process, scientific waterproofing of leather can effectively improve the quality of leather and extend the service life of leather.

At this stage, the waterproof performance of leather has been regarded as an important practical data indicator and has received widespread attention from all walks of life.

In order to provide a basis for the determination of the waterproof performance of soft leather, it is intended to consist of two parts.

--- Part 1: Repeated Linear Compression Method (Penetrometer Method). The purpose is to establish the method for determining the resistance of soft leather to water by means of compression bending.

Test methods for water properties.

--- Part 2: Repeated angular compression method (Mezer method). The purpose is to establish the method for determining the water resistance of soft leather by folding bending.

Performance test methods.

Since leather is in motion during normal use and wearing, the testing process of leather waterproof performance is also carried out under simulated motion conditions.

At present, the waterproof performance of soft leather in my country is mainly determined by the penetrometer method, that is, by repeatedly measuring the water resistance of the leather.

The compression method is used to measure the dynamic waterproof performance of soft leather.

ISO 5403-2:2011 was published to test the dynamic water resistance of soft leather by repeated angular compression.

The test provides a new method, but there is no relevant standard in my country. In view of this, it is necessary to transform it to adapt to the domestic and foreign New changes in products to meet new requirements for testing of different types of products, improve consistency with international standards, and ensure standards and industry development Coordinate.

Leather-Determination of water resistance of soft leather Part 2: Repeated angular compression method (Messer method)

1 Scope

This document describes the determination of the dynamic water resistance of leather by the repeated angular compression method using a Maze-type testing machine (optionally

with an electronic detection system).

test method.

This document is applicable to the determination of the waterproof properties of various types of soft leather (especially soft leather for shoes).

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to 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 locations for chemical, physical, mechanical and colour fastness tests on leather (GB/T 39364-2020, ISO 2418.

2017,MOD)

QB/T 2707 Preparation and conditioning of leather physical and mechanical test specimens (QB/T 2707-2018, ISO 2419:2012, MOD)

3 Terms and definitions

There are no terms or definitions that require definition in this document.

4 Principle

Fold the square leather sample and fix it in two V-shaped clamps with both ends closed, so that the sample forms a groove.

The folded groove is immersed in water, and the V-shaped clamp at one end is vibrated at a constant rate to make the sample bend repeatedly.

When there is any sign of water seepage, stop the test and record the vibration times of the mobile clamp at this time. Water seepage detection can also be performed through the electronic detection system.

The water absorption of the sample (measured in mass fraction) can also be determined.

Note: This method uses folding bending, while GB/T 22890.1 uses compression bending. Since the two test methods belong to different bending types, the test results are not comparable.