



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

GB/T 39375-2020

**Leather - Physical and mechanical tests - Determination of
dimensional change**

Issued on: November 19, 2020

Implemented on: June 1, 2021

Issued by: SAMR; SAC

Table of Contents

Foreword	3
1 Scope	5
2 Normative References	5
3 Principle	5
4 Instruments and Materials	6
5 Sampling and Preparation of Specimen	6
6 Test Procedures	7
7 Representation of Result	8
8 Test Report	9

1 Scope

This Standard specifies the method for measuring dimensional changes of the leather.

This Standard is applicable to the determination of dimensional changes of various 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 document.

GB/T 16991 Textiles - Test for Colour Fastness - Colour Fastness and Ageing to Artificial Light at High Temperatures: Xenon Arc (GB/T 16991-2008, ISO 105-B06:1998, MOD)

GB/T 39364 Leather - Chemical, Physical, Mechanical and Fastness Tests -Sampling Location (GB/T 39364-2020, ISO 2418:2017, MOD)

QB/T 2707 Leather - Physical and Mechanical Tests - Sample Preparation and Conditioning (QB/T 2707-2018, ISO 2419:2012, MOD)

QB/T 5250 Leather - Tests for Colour Fastness - Change in Colour with Accelerated Ageing (QB/T 5250-2018, ISO 17228:2005, MOD)

3 Principle

The leather specimen was subjected to aging treatment according to the provisions of

QB/T 5250, and then air-conditioned again to determine its shrinkage performance.

5250.

6.4 When necessary, the distance between the reference points can be measured according to 6.1 immediately after the aging treatment test (up to no more than 5min) after the sample has been aging, calculate the results, which shall be indicated in the report.

6.5 Readjust the specimen for at least 48h according to the provisions of QB/T 2707.

6.6 Re-measure the lengths of AB, BC, CD and DA on each specimen according to 6.1 and record them as α_2 , b_2 , c_2 , and d_2 , respectively.

6.7 When necessary, record the changes in the appearance, elasticity, softness, and hand feel of the specimen.

7 Representation of Result

7.1 Representation The dimensional change is expressed in terms of "linear shrinkage rate" (see 7.2) or "area shrinkage rate" (see 7.3); and the result is the arithmetic mean of the "linear shrinkage rate" or "area shrinkage rate" of each specimen; and expressed as a percentage (%), and accurate to 0.1%.

7.2 Linear shrinkage rate The linear shrinkage rate of the specimen is calculated according to Formula (1):

Where:

SL - linear shrinkage rate, expressed by %;

α_1 - Length of AB before aging treatment, in mm;

b_1 - length of BC before aging treatment, in mm;

c_1 - length of CD before aging treatment, in mm;

d_1 - length of DA before aging treatment, in mm;

α_2 - length of AB after aging treatment, in mm;

b_2 - length of BC after aging treatment, in mm;