BUREAU OF INDIAN STANDARDS

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भारतीय मानक मसौदा

चमड़े के भौतिक परीक्षण की पद्धतियाँ

भाग 12 जल वाष्प पारगम्यता का निर्धारण

Draft Indian Standard

Methods of Physical Testing of Leather

Part 12 Determination of Water Vapour Permeability

(ICS 59.140.30)

Leather, Tanning Materials and Allied Products Sectional Committee, CHD 17	**Last Date for Comments: 8th September 2024**

Leather, Tanning Materials and Allied Products Sectional Committee, CHD 17

NATIONAL FOREWORD

(*Formal clause will be added later*)

IS 5914: 1970 'Methods of physical testing of leather' prescribes the methods for carrying out physical tests for all types of leathers. The Committee responsible for formulating this standard has decided to harmonize the methods of test prescribed in IS 5914 with those prescribed in ISO/IULTCS standards. Accordingly, the committee decided to retain IS 5914 and publish the harmonized/ adopted test methods published by ISO/IULTCS in various parts of IS 5914 as this standard is widely recognized by the Indian Leather Industry.

The committee further decided to publish the adopted/harmonized standards in the following manner:

a) Wherever an existing test method is being replaced by the corresponding ISO/IULTCS test method, the relevant part will be published as revision with the information in the national foreword about the method of IS 5914 being superseded.

b) When a new test method is being incorporated in IS 5914, the same will be published as a new standard and as subsequent part of IS 5914.

The technical committee responsible for formulation this standard decided to publish the latest version of ISO 14268 'Leather — Physical and mechanical tests — Determination of water vapour permeability' as IS 5914 part 12 which will supersede LP: 21 of IS 5914:1970.

This Part 12 specifies a method for determining the water vapour permeability of leather and provides alternative methods of sample preparation and for the measurement procedure.

This Indian standard has been published in several parts. The other parts in this series are:

Part 1 Determination of water vapour absorption
Part 2 Determination of abrasion resistance
Sec 1 Taber Method (*first revision*)
Sec 2 Martindale ball plate method
Part 3 Determination of soiling
Sec 1 Rubbing (Martindale) method
Sec 2 Tumbling Method
Part 4 Determination of apparent density and mass per unit area.
Part 5 Determination of tear load
Sec 1 Single edge tear.
Sec 2 Double edge tear.
Part 6 Determination of flex resistance
Sec 1 Flexometer method.
Part 7 Determination of resistance to grain cracking and grain crack index.
Part 8 Determination of tensile strength and percentage elongation.
Part 9 Determination of heat resistance of patent leather (*under print* with Document no. CHD/17/24036)
Part 10 Determination of surface coating thickness (*under preparation* with Document no. CHD/17/26104)
Part 11 Determination of thickness (*under preparation* with Document no. CHD/17/26105)
Part 13 Determination of softness (*under preparation* with Document no. CHD/17/26107)

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.

b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 2418 Leather — Chemical, physical, mechanical and fastness tests — Position and preparation of	Doc No CHD/17/ 26061 IS 5868 (Part 2) : 20XX Leather — Method of Sampling	Identical with ISO 2418 : 2023

specimens for testing	Part 2 — Position and preparation of specimens for testing for Chemical, physical, mechanical and fastness tests	
ISO 2419 Leather — Physical and mechanical tests — Sample preparation and conditioning	Doc No CHD/17/ 26062 IS 5868 (Part 3) : 20XX Leather — Method of Sampling Part 3 — Sampling preparation and conditioning for physical and mechanical test	Identical with ISO 2419 : 2012
ISO 5402-1 — Leather — Determination of flex resistance — Part 1: Flexometer method	IS 5914 (Part 6/Sec 1) : 2023 / ISO 5402-1 : 2022 — Methods of Physical Testing of Leather Part 6 Determination of flex resistance Section 1 Flexometer method	Identical with ISO 5402-1 : 2022
ISO 2589 — Leather — Physical and mechanical tests — Determination of thickness	Doc no. CHD/17/26105 IS 5914 (Part 11) : 20XX Methods of Physical Testing of Leather Part 11 Determination of thickness	Identical with ISO 2589 : 2016

In this adopted standard, reference appears to certain International Standards where the standard atmospheric conditions to be observed are stipulated which are not applicable to tropical/subtropical countries. The applicable standard atmospheric conditions for Indian conditions are 27 °C ± 2 °C and (65 ± 5) percent, relative humidity and shall be observed while using this standard.

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2: 2022. 'Rules for rounding off numerical values (*second revision)'*.