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Leather — Identification of leather with microscopy

Cuir — Identification du cuir par microscopie

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 17131 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 289, *Leather*, in collaboration with the Physical Tests Commission of the International Union of Leather Technologists and Chemists Societies (IUP Commission, IULTCS) in accordance with the agreement on technical cooperation between ISO and CEN (Vienna Agreement).

IULTCS, originally formed in 1897, is a world-wide organization of professional leather societies to further the advancement of leather science and technology. IULTCS has three Commissions, which are responsible for establishing international methods for sampling and the testing of leather. ISO recognizes IULTCS as an international standardizing body for the preparation of test methods for leather.

Introduction

The identification of leather is best made by operators experienced in material identification using microscopy, which is the preferred method. With other methods, such as chemical analysis, it can be difficult to absolutely determine that the material is leather.

Leather — Identification of leather with microscopy

1 Scope

This International Standard specifies a method using microscopy to identify leather and distinguish it from other materials. The method is not applicable for identifying specific leathers (e.g. sheep leather).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15987, *Leather — Terminology — Key definitions for the leather trade*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15987 apply.

4 Principle

A cross-section of the material is cut perpendicular to the surface. The material structure is compared with typical pictures or known samples by means of microscopy.

The method should be carried out by operators experienced in material identification by microscopy.

5 Apparatus and materials

5.1 Light microscope or scanning electron microscope, capable of giving a normal magnification of at least 20×.

NOTE For some materials it is necessary to use a microscope with a magnification of 500×.

5.2 Razor blade, capable of cutting a clean cross-section in leather.

5.3 Coating unit, sputter or evaporation, including a suitable element or alloy (e.g. gold) for coating, if a scanning electron microscope is used.

5.4 Specimen stubs, suitable for a scanning electron microscope, if used.

5.5 Reference materials, with known designation.