

INTERNATIONAL  
STANDARD

ISO  
15701

IULTCS/IUF 442

Second edition  
2015-04-15

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**Leather — Tests for colour fastness  
— Colour fastness to migration into  
polymeric material**

*Cuir — Essais de solidité des coloris — Solidité des coloris à la  
migration dans les matériaux polymères*



Reference numbers  
ISO 15701:2015(E)  
IULTCS/IUF 442:2015(E)

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ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

ISO 15701 was prepared by the Fastness Tests Commission of the International Union of Leather Technologists and Chemists Societies (IUF Commission, IULTCS) in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 289, *Leather*, the secretariat of which is held by UNI, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

It is based on IUF 442 published in *J. Sec. Leather Tech. Chem.*, **56**, pp. 395-400 (1972) with a minor amendment in **65**, p. 128 (1981), and declared an official method of the IULTCS in 1973 and reconfirmed in 1989.

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 the sampling and testing of leather. ISO recognizes IULTCS as an international standardizing body for the preparation of test methods for leather.

This second edition cancels and replaces the first edition (ISO 15701:1998), which has been technically revised with the following changes:

- use of polymeric test materials other than poly(vinyl chloride) is allowed;
- change in title to reflect the use of polymeric test materials;
- technical update of the procedures;
- revision of the loading in [4.1](#) and [6.1](#);
- inclusion of precision information as [Clause 7](#).

[Annex A](#) is for information only.

# Leather — Tests for colour fastness — Colour fastness to migration into polymeric material

## 1 Scope

This International Standard specifies a method for assessing the propensity of dyes and pigments to migrate from leather to a synthetic substrate by determining the transfer of colour from the leather to white plasticized poly(vinyl chloride) in contact with it.

This method is suitable for leather of all kinds at any stage of processing.

NOTE Tests to determine the transfer of colour from the leather using other polymeric materials (e.g. thermoplastic polyurethane) are also possible.

## 2 Normative references

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

ISO 105-A01, *Textiles — Tests for colour fastness — Part A01: General principles of testing*

ISO 105-A03, *Textiles — Tests for colour fastness — Part A03: Grey scale for assessing staining*

ISO 105-A04, *Textiles — Tests for colour fastness — Part A04: Method for the instrumental assessment of the degree of staining of adjacent fabrics*

ISO 2418, *Leather — Chemical, physical and mechanical and fastness tests — Sampling location*

## 3 Principle

The side under test of the leather specimen is placed on a polymeric sheet, for example a white-pigmented sheet of plasticized poly(vinyl chloride), and the resultant composite specimen is exposed to heat under pressure in a suitable apparatus. The transfer of colour from the leather to the white sheet is assessed with the standard grey scale for assessing staining and, if applicable, any change in hue of the staining is also assessed.

The use of standard sheets of plasticized poly(vinyl chloride) makes it possible to determine the tendency of colour to migrate from the leather to synthetic materials used in conjunction with the leather.

If the leather has a finish, the test may be carried out with the finish intact or broken.

The general colour fastness testing principles used are in accordance with those described in ISO 105-A01, taking into account the differences between textile substrates and leather.

## 4 Apparatus and materials

Normal laboratory apparatus and:

**4.1 Test apparatus**, in which the composite specimen can be subjected, between glass plates, to a uniform pressure of  $(81,7 \pm 4,0)$  kPa using an approximately 5 kg load weight. The pressure tolerance includes a maximal supplementary mass due to the glass plates of 250 g. The construction of the test apparatus shall ensure that the pressure is constant during the whole test.