
**Leather — Chemical tests — Quantitative
analysis of tanning agents by filter
method**

*Cuir — Essais chimiques — Analyse quantitative des agents de
tannage par la méthode au filtre cloche*



COPYRIGHT PROTECTED DOCUMENT

© ISO 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

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
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Principle	1
4 Reagents	1
5 Apparatus	1
6 Sampling and sample preparation	3
7 Instrumental analysis	4
7.1 Preparation of the analytical solution	4
7.1.1 Vegetable tanning agents in powder/solid form	4
7.1.2 Vegetable tanning agents in liquid form	4
7.1.3 Synthetic tanning agents in powder form	4
7.1.4 Synthetic tanning agents in liquid form	4
7.1.5 Vegetable tanning agents organic solvent extracted in powder form	4
7.2 Preparation of the bell	5
7.3 De-tanning the analytical solution (determination of the non-tanning agents)	5
7.4 Determination of soluble substances	5
7.5 Determination of total solids	6
8 Calculation and expression of the results	6
9 Test report	7
Annex A (informative) Approximate quantity of vegetable tannic extract agent in powder/solid form to be weighed	8
Annex B (normative) Determination of hide powder blank value	9
Annex C (informative) Suppliers of hide powder	10

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 14088 was prepared by the Chemical Test Commission of the International Union of Leather Technologists and Chemists Societies (IUC 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).

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.

Leather — Chemical tests — Quantitative analysis of tanning agents by filter method

1 Scope

This International Standard specifies a test method for the determination of tanning agents through filtration of all vegetable and synthetic tanning products.

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.

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

3 Principle

Indirect gravimetric analysis of vegetable and synthetic tanning agents through fixing of the absorbent compounds on low-chromed hide powder.

4 Reagents

4.1 Distilled water, freshly prepared according to ISO 3696 (Water for analytical laboratory use, Grade 3).

The pH value of the water shall be between 5 and 6. When using methyl red, the water should not turn red. The evaporation residue of 100 ml should be less than 1 mg.

4.2 Hide powder¹⁾, containing not more than 0,5 % chromium oxide and with a humidity not more than 13 %.

The blank value of the hide powder shall be calculated according to Annex B.

4.3 Gelatine solution, of 1 g gelatine and 10 g sodium chloride, filled up to 100 ml with distilled water, adjusted to pH = 4,7.

5 Apparatus

The glass equipment shall be resistant to the action of distilled water. The flasks and tubes shall be Class A.

Use normal laboratory equipment and, in particular, the following.

5.1 Desiccator, with an airtight cover and containing silica orange gel.

1) See Annex C.