
INTERNATIONAL STANDARD



4048

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Leather — Determination of matter soluble in dichloromethane

Cuir — Dosage des matières solubles dans le dichlorométhane

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FOREWORD

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 4048 was developed by Technical Committee ISO/TC 120, *Leather*, and was circulated to the member bodies in August 1976.

It has been approved by the member bodies of the following countries:

Australia	Hungary	Poland
Brazil	India	Romania
Chile	Israel	South Africa, Rep. of
Czechoslovakia	Mexico	Turkey
France	Netherlands	United Kingdom
Germany	New Zealand	

The member body of the following country expressed disapproval of the document on technical grounds:

U.S.S.R.

This International Standard is based on method IUC/4 of the International Union of Leather Technologists' and Chemists' Societies.

Leather — Determination of matter soluble in dichloromethane

0 INTRODUCTION

Not all fatty and similar substances can be extracted from leather with organic solvents; they may be partly soluble and partly bound to the leather. On the other hand, the solvent may dissolve non-fatty substances, for example sulphur and impregnants, both of which cause difficulty in the determination of the acid and saponification values of the fats.

NOTE — The apparatus and procedure specified in this method are also suitable for the extraction of leather by solvents other than dichloromethane. If, for any purpose, other solvents are used, the solvent or solvents used should be stated in the test report.

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method for the determination of the substances in leather which are soluble in dichloromethane.

This method is applicable to all types of leather.

2 REFERENCES

ISO 2418, *Leather — Laboratory samples — Location and identification.*

ISO 2588, *Leather — Sampling — Number of items for a gross sample.*

ISO 4044, *Leather — Preparation of chemical test samples.*¹⁾

ISO 4098, *Leather — Determination of water-soluble matter, water-soluble inorganic matter, and water-soluble organic matter.*¹⁾

3 DEFINITION

For the purposes of this International Standard, the following definition applies :

extractable substances : Fats and other soluble matter which can be extracted from leather with dichloromethane.

4 PRINCIPLE

Continuous extraction of a sample of the prepared leather with dichloromethane. Evaporation of the solvent from the extract. Drying of the extract at 102 ± 2 °C and weighing.

5 REAGENTS

During the analysis, use only reagents of recognized analytical grade.

5.1 Dichloromethane, boiling point 38 to 40 °C, freshly distilled and kept in a dark flask over calcium oxide.

WARNING — Dichloromethane has toxic properties and should be used with caution.

NOTES

1 Dichloromethane that has stood for a long time should be tested for the presence of any hydrochloric acid which may have formed, as follows :

Shake 10 ml of dichloromethane with 1 ml of 0,1 N silver nitrate solution. If the silver nitrate solution becomes turbid, the dichloromethane should be redistilled and kept in a dark flask over calcium oxide.

2 Dichloromethane which has been used for this analysis can be recovered and reused after distillation.

6 APPARATUS

Ordinary laboratory apparatus and in particular

6.1 Soxhlet extraction apparatus, including an extraction flask of suitable capacity and a condenser.

6.2 Filter paper thimbles, of suitable sizes and manufacture, or **suitable glass filter bells**.

6.3 Oven, capable of being maintained at 102 ± 2 °C.

7 SAMPLING

7.1 Whole pieces of leather

In the absence of any other agreement on sampling between the interested parties, the procedure specified in ISO 2588 for sampling from a lot shall be followed. Samples shall be taken from the pieces as specified in ISO 2418.

7.2 Other applications

Sampling shall be carried out as required by the relevant specification or contract.

1) At present at the stage of draft.