

---

---

**Oilseed meals — Determination of oil  
content — Rapid extraction method**

*Tourteaux de graines oléagineuses — Détermination de la teneur en  
huile — Méthode d'extraction rapide*



This document is a preview generated by EBS



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2015, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
copyright@iso.org  
www.iso.org

# Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Principle</b> .....	<b>1</b>
<b>5 Reagents and materials</b> .....	<b>1</b>
<b>6 Apparatus</b> .....	<b>2</b>
<b>7 Sampling</b> .....	<b>3</b>
<b>8 Preparation of test sample</b> .....	<b>3</b>
<b>9 Procedure</b> .....	<b>4</b>
9.1 General.....	4
9.2 Test portion.....	4
9.3 Determination.....	4
<b>10 Expression of results</b> .....	<b>5</b>
<b>11 Precision</b> .....	<b>5</b>
11.1 Interlaboratory test.....	5
11.2 Repeatability.....	5
11.3 Reproducibility.....	5
<b>12 Test report</b> .....	<b>6</b>
<b>Annex A (informative) Results of interlaboratory test</b> .....	<b>7</b>
<b>Bibliography</b> .....	<b>8</b>

## 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](#)

The committee responsible for this document is ISO/TC 34, *Food products*, Subcommittee SC 2, *Oleaginous seeds and fruits and oilseed meals*.

This first edition cancels and replaces ISO 734-2:2008, which has been renumbered and editorially revised.

# Oilseed meals — Determination of oil content — Rapid extraction method

## 1 Scope

This International Standard specifies an extraction method which may be used to assess the efficiency of a de-oiling process by comparing the oil content of the oilseed with the residual oil content of the corresponding extraction meals, pellets and expeller cakes.

It is not applicable to disputed cases, for which ISO 734 is applicable.

It is applicable to oilseed meals obtained from oilseeds by expelling or by extraction with a solvent, as well as to the pellets made from the residues.

## 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 771, *Oilseed residues — Determination of moisture and volatile matter content*

ISO 5502, *Oilseed residues — Preparation of test samples*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### oil content

sum of the mass fractions of the substances extracted under the operating conditions specified in this International Standard on the basis of the product as received

Note 1 to entry: The mass fraction is expressed as a percentage.

Note 2 to entry: On request, the oil content may be expressed relative to dry matter.

## 4 Principle

The test portion is ground in a micro-ball mill in the presence of a solvent and subsequently extracted with the same solvent in a suitable apparatus. The solvent is removed from the extract by distillation, then the residue is weighed after drying.

## 5 Reagents and materials

Use only reagents of recognized analytical grade, unless otherwise specified.

**5.1 Technical hexane, *n*-hexane or light petroleum ether**, essentially composed of hydrocarbons with six carbon atoms, of which less than 5 % distils below 50 °C and more than 95 % distils between 50 °C and 70 °C.

For either solvent, the residue on complete evaporation shall not exceed 2 mg per 100 ml.