



**SLOVENSKI STANDARD**  
**oSIST ISO 6883:2011**  
**01-april-2011**

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**Živalske in rastlinske maščobe in olja - Določanje dogovorjene mase na enoto prostornine (masa litra v zraku)**

Animal and vegetable fats and oils -- Determination of conventional mass per volume (litre weight in air)

Corps gras d'origines animale et végétale -- Détermination de la masse volumique conventionnelle (poids du litre dans l'air)

**Ta slovenski standard je istoveten z: ISO 6883:2007**

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# INTERNATIONAL STANDARD

**ISO  
6883**

Fourth edition  
2007-05-01

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## **Animal and vegetable fats and oils — Determination of conventional mass per volume (litre weight in air)**

*Corps gras d'origines animale et végétale — Détermination de la masse  
volumique conventionnelle (poids du litre dans l'air)*



Reference number  
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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 6883 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 11, *Animal and vegetable fats and oils*.

This fourth edition cancels and replaces the third edition (ISO 6883:2000), which has been technically revised.

# Animal and vegetable fats and oils — Determination of conventional mass per volume (litre weight in air)

## 1 Scope

This International Standard specifies a method for the determination of the conventional mass per volume (“litre weight in air”) of animal and vegetable fats and oils (hereinafter referred to as fats) in order to convert volume to mass or mass to volume.

The procedure is applicable only to fats in a liquid state.

The temperature of determination applied for any fat should be such that the fat does not deposit crystals at that temperature.

## 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 661, *Animal and vegetable fats and oils — Preparation of test sample*

ISO 3507, *Laboratory glassware — Pyknometers*

## 3 Terms and definitions

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

### 3.1

#### **conventional mass per volume**

#### **litre weight in air**

quotient of the mass in air of fat to its volume at a given temperature

NOTE It is expressed in kilograms per litre (numerically equal to grams per millilitre).

## 4 Principle

The mass of a volume of liquid fat in a calibrated pyknometer is measured at a specified temperature.

## 5 Apparatus

Usual laboratory apparatus and, in particular, the following.

**5.1 Water bath**, capable of being maintained to within 0,1 °C of the temperatures chosen for the calibration and determination.

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It should be fitted with a calibrated thermometer, graduated in divisions of 0,1 °C covering the relevant temperature range.

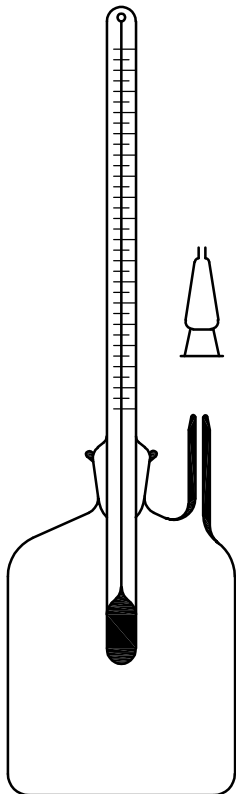
**5.2 Pyknometer (Jaulmes), of capacity 50 ml, with side-arm.**

It should be fitted by means of conical joints with a calibrated thermometer graduated in divisions of 0,1 °C and with a cap perforated at the top for the side-arm (see Figure 1).

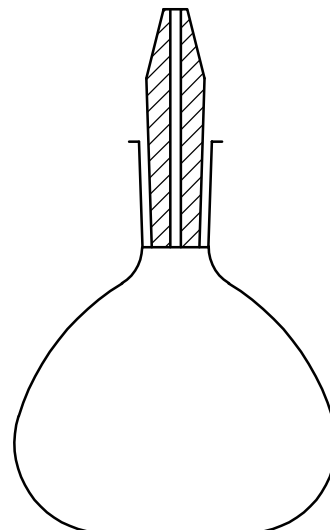
The pyknometer should preferably be made of borosilicate glass, but if this is not available then one made of soda glass may be used.

NOTE The cap is only essential if the determination is carried out at a temperature below ambient.

Alternatively, the Type 3 (Gay-Lussac) pyknometer (see Figure 2) specified in ISO 3507 may be used; however, the use of a pyknometer with thermometer is preferred.



**Figure 1 — Jaulmes pyknometer**



**Figure 2 — Gay-Lussac pyknometer**

**6 Sampling**

A representative sample should have been sent to the laboratory. It should not have been damaged or changed during transport or storage.

Sampling is not part of the method specified in this International Standard. A recommended sampling method is given in ISO 5555.