

Materials and articles in contact with foodstuffs -  
Plastics - Part 2: Test methods for overall migration in  
vegetable oils

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 1186-2:2022 sisaldab Euroopa standardi EN 1186-2:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 1186-2:2022 consists of the English text of the European standard EN 1186-2:2022.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 27.07.2022.	Date of Availability of the European standard is 27.07.2022.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

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EUROPEAN STANDARD

EN 1186-2

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English Version

## Materials and articles in contact with foodstuffs - Plastics - Part 2: Test methods for overall migration in vegetable oils

Matériaux et objets en contact avec les denrées  
alimentaires - Matière plastique - Partie 2 : Méthodes  
d'essai pour la migration globale dans les huiles  
végétales

Werkstoffe und Gegenstände in Kontakt mit  
Lebensmitteln - Kunststoffe - Teil 2: Prüfverfahren für  
die Gesamtmigration in Pflanzenölen

This European Standard was approved by CEN on 20 June 2022.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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## European foreword

This document (EN 1186-2:2022) has been prepared by Technical Committee CEN/TC 194 “Utensils in contact with food”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2023, and conflicting national standards shall be withdrawn at the latest by January 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1186-2:2002, EN 1186-4:2002, EN 1186-6:2002, EN 1186-8:2002, EN 1186-10:2002 and EN 1186-12:2002.

This document implements European Commission Regulation on plastic materials and articles intended to come into contact with food with regards to the determination of the overall migration in food simulants. This regulatory text is subject to change, it is therefore strongly recommended that users of this document refer to the latest relevant published regulatory texts before commencement of any of the test or tests described in this document, looking to the European Commission website.

In comparison with the previous editions, the following technical modifications have been made:

- removed the regulatory provisions put in the document to avoid the document being obsolete after an update of regulation;
- adapted the method of test to the new conditions defined in the regulation;
- gathered in one document the 6 previous standards that use vegetable oils as simulants and which are based on the same principle of measuring.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This document specifies methods for measuring overall migration of plastic materials and articles intended to come into contact with foodstuffs by contacting test specimens with vegetable oils at temperatures greater than or equal to 4 °C and less than or equal to 175 °C.

NOTE Some vegetable oils are not suitable for use below 20 °C.

The overall migration from a sample of the plastics is determined as the loss in mass of non-volatile substances expressed:

- per unit surface area; or
- per kg of food simulant; or
- per article

after contact with a food simulant under defined conditions.

According to the type of materials or shape of articles, contact with the food simulant is carried out on a single surface (pouch, cell, filling) or by immersion.

This document does not cover the interpretation of the results which is expected to account for regulatory requirements.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 648, *Laboratory glassware — Single-volume pipettes*

## 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

### 3.1

#### **ready-to-use article**

article as sold that can be used with minimal if any preparation

### 3.2

#### **sample**

material or article under test

### 3.3

#### **test specimen**

part of the sample undergoing a measurement during the test