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**BSI Standards Publication**

## **Materials and articles in contact with foodstuffs — Plastics**

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Part 3: Test methods for overall migration in evaporable simulants

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## National foreword

This British Standard is the UK implementation of EN 1186-3:2022. It supersedes BS EN 1186-5:2002, BS EN 1186-7:2002, BS EN 1186-3:2002, BS EN 1186-15:2002, BS EN 1186-14:2002 and BS EN 1186-9:2002, which are withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CW/29, Tableware.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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1186-9:2002

English Version

## Materials and articles in contact with foodstuffs - Plastics - Part 3: Test methods for overall migration in evaporable simulants

Matériaux et objets en contact avec les denrées  
alimentaires - Matière plastique - Partie 3 : Méthodes  
d'essai pour la migration globale dans les simulants  
évolables

Werkstoffe und Gegenstände in Kontakt mit  
Lebensmitteln - Kunststoffe - Teil 3: Prüfverfahren für  
die Gesamtmigration in verdampfbaren Simulanzien

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

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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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<b>Contents</b>	<b>Page</b>
<b>European foreword</b> .....	<b>3</b>
<b>1 Scope</b> .....	<b>4</b>
<b>2 Normative references</b> .....	<b>4</b>
<b>3 Terms and definitions</b> .....	<b>4</b>
<b>4 Test method</b> .....	<b>5</b>
<b>4.1 Principle</b> .....	<b>5</b>
<b>4.2 Reagents</b> .....	<b>6</b>
<b>4.3 Materials and apparatus</b> .....	<b>7</b>
<b>4.4 Preparation of test specimens</b> .....	<b>8</b>
<b>4.5 Exposure to food simulants</b> .....	<b>11</b>
<b>4.6 Determination of migrating amount</b> .....	<b>13</b>
<b>4.7 Expression of results</b> .....	<b>15</b>
<b>5 Test report</b> .....	<b>18</b>
<b>Annex A (normative) Requirements for alcohol dilution and contact time and temperature tolerances</b> .....	<b>19</b>
<b>Annex B (informative) Precision data</b> .....	<b>22</b>
<b>Bibliography</b> .....	<b>23</b>

This is a preview of "BS EN 1186-3:2022". [Click here to purchase the full version from the ANSI store.](#)

## European foreword

This document (EN 1186-3:2022) 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 February 2023, and conflicting national standards shall be withdrawn at the latest by February 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 1186-3:2002, EN 1186-5:2002, EN 1186-7:2002, EN 1186-9:2002, EN 1186-14:2002 and EN 1186-15:2002.

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; therefore, it is strongly recommended that users of this document refer to the latest relevant published regulatory texts (to be found on the European Commission website) before commencement of any of the tests described in this document.

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;
- combined in one document the 6 previous standards that use evaporable 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, Türkiye and the United Kingdom.

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## 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 evaporable food simulants at temperatures greater than or equal to 4 °C and not exceeding the reflux temperature.

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 apply.

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

### 3.4

#### **piece**

portion of a test specimen