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# International Standard



# 3103

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

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## Tea — Preparation of liquor for use in sensory tests

*Thé — Préparation d'une infusion en vue d'examens organoleptiques*

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Descriptors : tea, sensory analysis, test specimen conditioning, test specimens.

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

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 3103 was developed by Technical Committee ISO/TC 34, *Agricultural food products*, and was circulated to the member bodies in September 1977.

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It has been approved by the member bodies of the following countries:  
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The member body of the following country expressed disapproval of the document on technical grounds :

Ireland

# Tea — Preparation of liquor for use in sensory tests

## 1 Scope and field of application

This International Standard specifies a method for the preparation of a liquor of tea for use in sensory tests, by means of infusing the leaf.

## 2 Definitions

For the purpose of this International Standard, the following definitions apply.

**2.1 liquor** : The solution prepared by extraction of soluble substances from dried tea leaf, under the conditions described.

**2.2 infused leaf** : Tea leaf from which liquor has been prepared.

NOTE — In the tea trade in the United Kingdom, the term “infusion” is used with the meaning of 2.2, but, to avoid confusion with the more general usage of this word, the expression “infused leaf” has been used.

## 3 Reference

ISO 1839, *Tea — Sampling*.

## 4 Principle

Extraction of soluble substances in dried tea leaf, contained in a porcelain or earthenware pot, by means of freshly boiling water, pouring of the liquor into a white porcelain or earthenware bowl, examination of the organoleptic properties of the infused leaf, and of the liquor with or without milk or both.

## 5 Apparatus

**5.1 Pot**, of white porcelain or glazed earthenware, with its edge partly serrated (see figure) and provided with a lid, the skirt of which fits loosely inside the pot.

**5.2 Bowl**, of white porcelain or glazed earthenware.

NOTE — Various sizes of pot and bowl can be used, but it is recommended that one of the two sizes shown in the annex, and depicted in the figure, be adopted.

## 6 Sampling

See ISO 1839.

## 7 Procedure

### 7.1 Test portion

Weigh to an accuracy of  $\pm 2\%$ , a mass of tea corresponding to 2 g of tea per 100 ml of liquor (i.e.  $5,6 \pm 0,1$  g of tea for the large pot or  $2,8 \pm 0,05$  g for the small pot described in the annex) and transfer it to the pot (5.1).

### 7.2 Preparation of liquor

#### 7.2.1 Preparation without milk

Fill the pot containing the tea with freshly boiling water<sup>1)</sup> to within 4 to 6 mm of the brim (i.e. corresponding approximately to 285 ml in the case of the large pot and 140 ml in the case of the small pot described in the annex) and put on the lid. Allow the tea to brew for 6 min, and then, holding the lid in place so that the infused leaf is held back, pour the liquid through the serrations into the bowl (5.2) corresponding to the pot selected. Remove and invert the lid, transfer the infused leaf to it and place the inverted lid on the empty pot to allow the infused leaf to be inspected. In the case of fine, powdery dust grades, special care should be taken and a sieve may be required.

#### 7.2.2 Preparation with milk

Pour milk free from any off-flavour (for example raw milk or un-boiled pasteurized milk) into the bowl (5.2), using approximately 5 ml for the large bowl and 2,5 ml for the small bowl described in the annex.

1) The flavour and appearance of the liquor are affected by the hardness of the water used. The water used for the test should therefore be similar to the drinking water in the area where the tea is to be consumed. In exceptional cases, for example when comparative tests are required to be made in different areas and it is not possible to procure similar waters or suitable ordinary water for this purpose, distilled water or deionized water may be used. It should be recognized, however, that the results will not then necessarily bear a true relation to the flavour of the liquor produced with ordinary drinking water, since the mineral salts in the latter may modify the flavour and appearance of the tea.

Prepare the liquor as described in 7.2.1 but pour it into the bowl after the milk, in order to avoid scalding the milk, unless this procedure is contrary to the normal practice in the organization concerned.

If the milk is added afterwards, experience has shown that the best results are obtained when the temperature of the liquor is in the range 65 to 80 °C when the milk is added.

While addition of milk is not essential, it sometimes helps to accentuate differences in flavour and colour.

NOTE — When comparative tests are made using liquors prepared in accordance with 7.2.1 or 7.2.2, it is essential that the following be kept identical :

- a) the mass of the tea;
- b) the volume and type of water;
- c) the size and dimensions of the pots and bowls;
- d) the brewing time;
- e) the volume and type of milk (if used).

## 8 Test report

The test report shall indicate the method used, including the following details :

- the mass of tea used;
- the volume of water used;
- the duration of brewing, if other than 6 min;
- the source of the water (if relevant);
- whether or not the test has been carried out with milk and, if so, the volume and type of milk and whether it was added to the bowl before or after the liquor.

The test report shall also give all details required for the complete identification of the sample.

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## Annex

### Examples of pots and bowls for preparation of tea liquor

In the figure are shown two sizes of pots and the corresponding bowls which are in widespread use. Particulars not shown in the drawing are given below.

bowl is such as to allow the taster an uninterrupted view of the liquor without shadow.

#### A.1 Pot

**A.1.1** The maximum capacities, when the pots are filled to the partly serrated edge, are  $310 \pm 8$  ml for the large pot and  $150 \pm 4$  ml for the small pot.

The inside of the pot may be marked with a groove, or a coloured line, to indicate the volume of water which should be added.

**A.1.2** The lid should be loose-fitting and provided with a small hole to allow air to enter when the liquor is being poured out of the pot.

#### A.3 Tolerances

**A.3.1** The tolerances shown in the figure apply to the pots and bowls in use, and it is recommended that tighter specification should be applied in manufacture.

**A.3.2** The recommended masses are given below. These are considered necessary to obtain a reproducible temperature profile during the preparation of the liquor, and to eliminate variations in the temperature of consecutive samples during tasting.

Pot without lid :

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#### A.2 Bowl

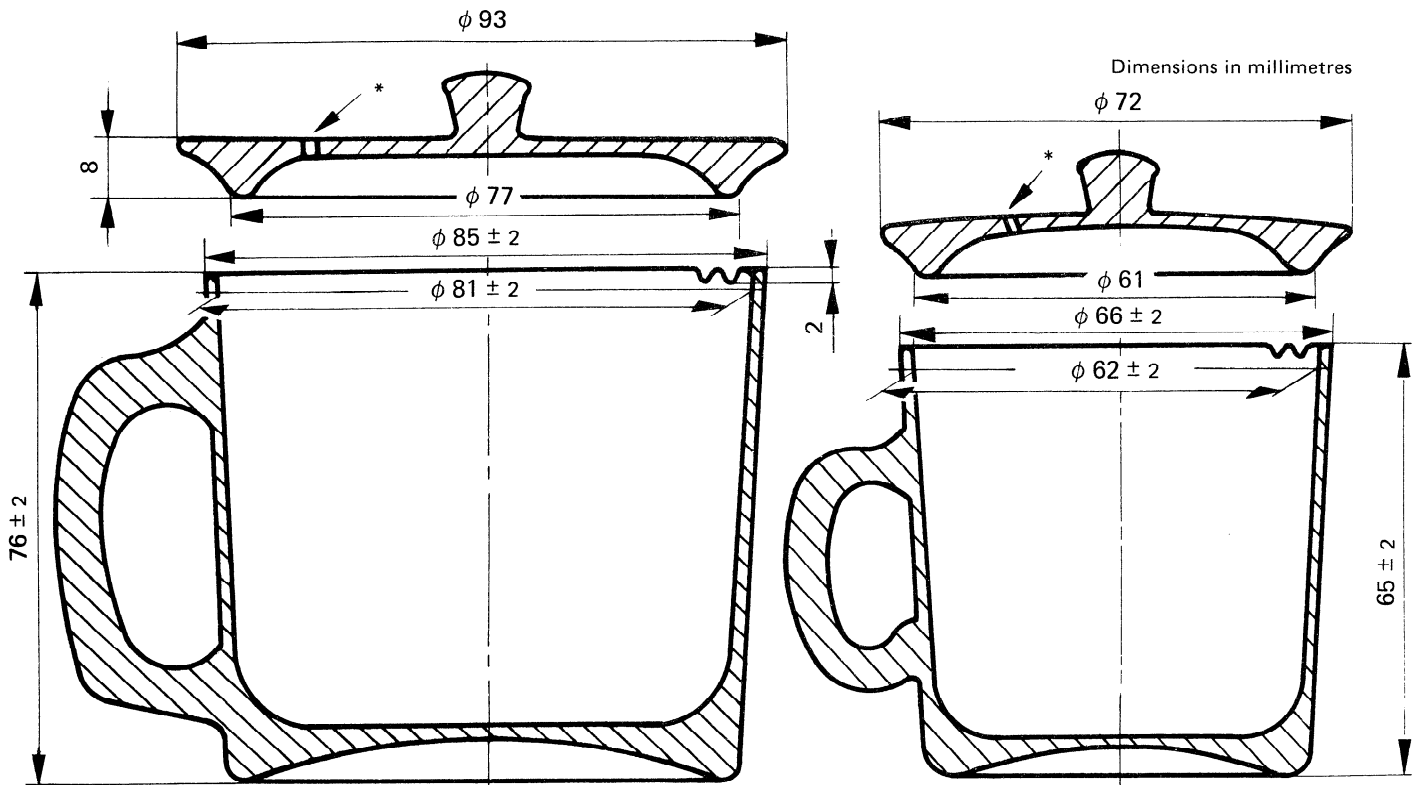
The maximum capacities are 380 ml for the large bowl and 200 ml for the small bowl.

Bowl :

large,  $200 \pm 10$  g;  
small,  $118 \pm 10$  g;

NOTE — The diameter of the bowl is such that the pot and lid can rest inside to drain off the liquor, and the angle of the inside surface of the

large,  $200 \pm 20$  g;  
small,  $105 \pm 20$  g.

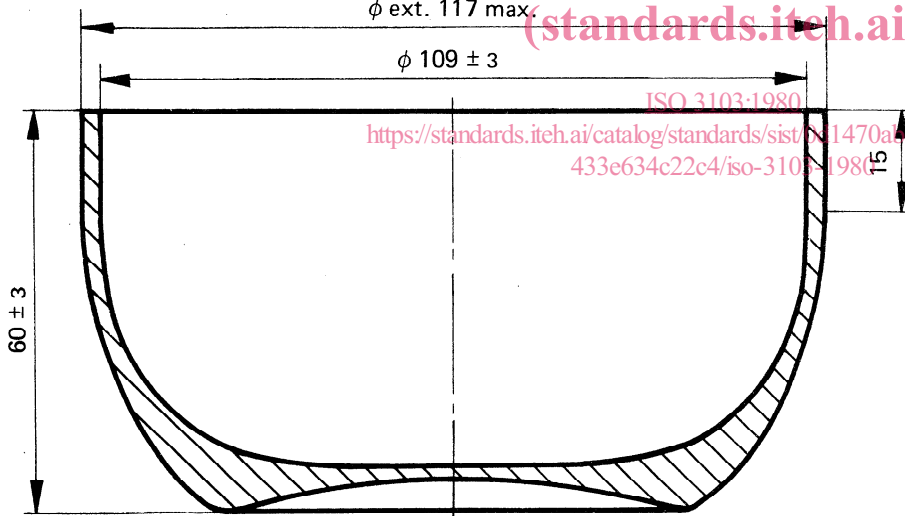


Large pot and lid

Small pot and lid

$\phi$  ext. 117 max.

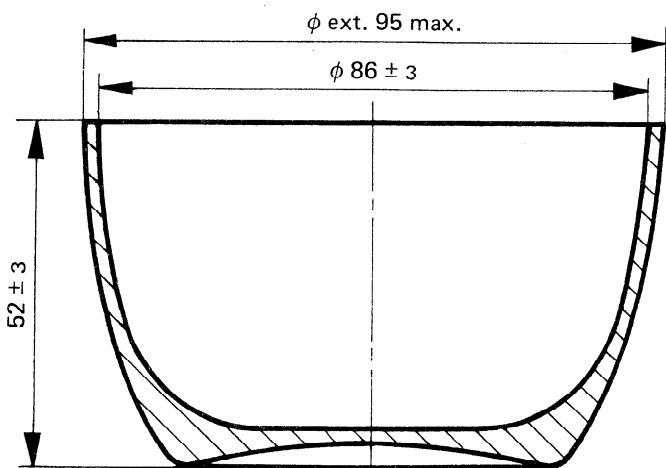
$\phi 109 \pm 3$



Large bowl

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\* Small hole in lid to facilitate pouring



Small bowl

Figure — Pots and bowls for preparation of tea liquor

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