भारतीय मानक

Indian Standard

IS 6400 : 2023
ISO 3103 : 2019

चाय — संवेदी परीक्षण में उपयोग के लिए द्रव तैयार करना

(दूसरा पुनरीक्षण)

Tea — Preparation of Liquor for Use in Sensory Tests

(Second Revision)

ICS 67.140.10; 67.240

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Stimulant Foods Sectional Committee, FAD 06

NATIONAL FOREWORD

This Indian Standard (Second Revision) which is identical with ISO 3103 : 2019 'Tea — Preparation of Liquor for Use in Sensory Tests' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards, on recommendation of the Stimulant Foods Sectional Committee, and approval of the Food and Agriculture Division Council.

This Indian Standard was first published in 1971 based on the corresponding ISO document which at that time was in the draft stage. The ISO draft was subsequently finalized and printed as ISO 3103 : 1980. The Indian Standard was subsequently revised in 1993 to align it with ISO 3103 : 1980 and adopt the same under dual numbering. This second revision has been undertaken to align the standard with the latest version of ISO Standard, ISO 3103 : 2019. In this revision, the title has also been modified in line with ISO Standard.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to the following International Standard for which Indian Standard also exists. The corresponding Indian Standard which is to be substituted in its place is listed below along with its degree of equivalence for the edition indicated:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 1839 Tea — Sampling	IS 3611 : 2000/ISO 1839 : 1980 Tea — Sampling (*second revision*)	Identical

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'.

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Indian Standard

TEA — PREPARATION OF LIQUOR FOR USE IN SENSORY TESTS

(Second Revision)

1 Scope

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

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 1839, *Tea — Sampling*

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 http://www.electropedia.org/

3.1
liquor
solution prepared by extraction of soluble substances from dried tea leaf, under the conditions described

3.2
infused leaf
tea leaf from which *liquor* (3.1) has been prepared

3.3
black tea
tea derived solely and exclusively, and produced by acceptable processes, notably withering, leaf maceration, aeration and drying, from the tender shoots of varieties of the species *Camellia sinensis* (L.) O. Kuntze, known to be suitable for making tea for consumption as a beverage

[SOURCE: ISO 3720:2011, 3.1]

3.4
green tea
tea derived solely and exclusively, and produced by acceptable processes, notably enzyme inactivation and commonly rolling or comminution, followed by drying, from the tender leaves, buds, and shoots of varieties of the species *Camellia sinensis* (L.) O. Kuntze, known to be suitable for making tea for consumption as a beverage

[SOURCE: ISO 11287:2011, 3.1]

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 A.1) and provided with a lid, the skirt of which fits loosely inside the pot.

5.2 Bowl, of white porcelain or glazed earthenware.

Various sizes of pot and bowl can be used, but it is recommended that one of the two sizes shown in Annex A, and depicted in Figure A.1, be adopted.

6 Sampling

Sampling shall be carried out in accordance with ISO 1839.

7 Procedure

7.1 Test portion

Weigh, to an accuracy of ±2 %, a mass of tea required according to Table 1 and transfer it to the pot (5.1).

7.2 Preparation of liquor

7.2.1 Preparation without milk

Table 1 — Preparation without milk

Type of tea	Test portion	Temperature of water	Brew time
Black	2 g tea per 100 ml 5,6 ± 0,1 g (large pot) 2,8 ± 0,05 g (small pot)	Boiling (approx. 100 °C)	6 min
Green	2 g tea per 100 ml 5,6 ± 0,1 g (large pot) 2,8 ± 0,05 g (small pot)	Boiling (approx. 100 °C)	Leafy type: 5 min Fannings type: 3 min

Fill the pot containing the tea with water of the appropriate temperature (see Table 1) to within 4 mm 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, as described in Annex A) and put on the lid. Allow the tea to brew for the appropriate time (see Table 1) 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 can be required.

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 can modify the flavour and appearance of the tea.

Water boils at sea level at 100 °C. If the testing is taken at an altitude that has a significant impact on this temperature, this should be stated in the tasting report.

7.2.2 Preparation with milk (black tea only)

Pour milk free from any off-flavour (e.g. raw milk or unboiled pasteurized milk) into the bowl (5.2), using approximately 5 ml for the large bowl and 2,5 ml for the small bowl, as described in Annex A.

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 °C to 80 °C when the milk is added.

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

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 and the following:

— the mass of tea used;

— the volume of water used;

— the type/dimensions of the cup and bowl;

— the duration of brewing;

— the source of the water (if relevant);

— the temperature of the water used for brewing;

— 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.

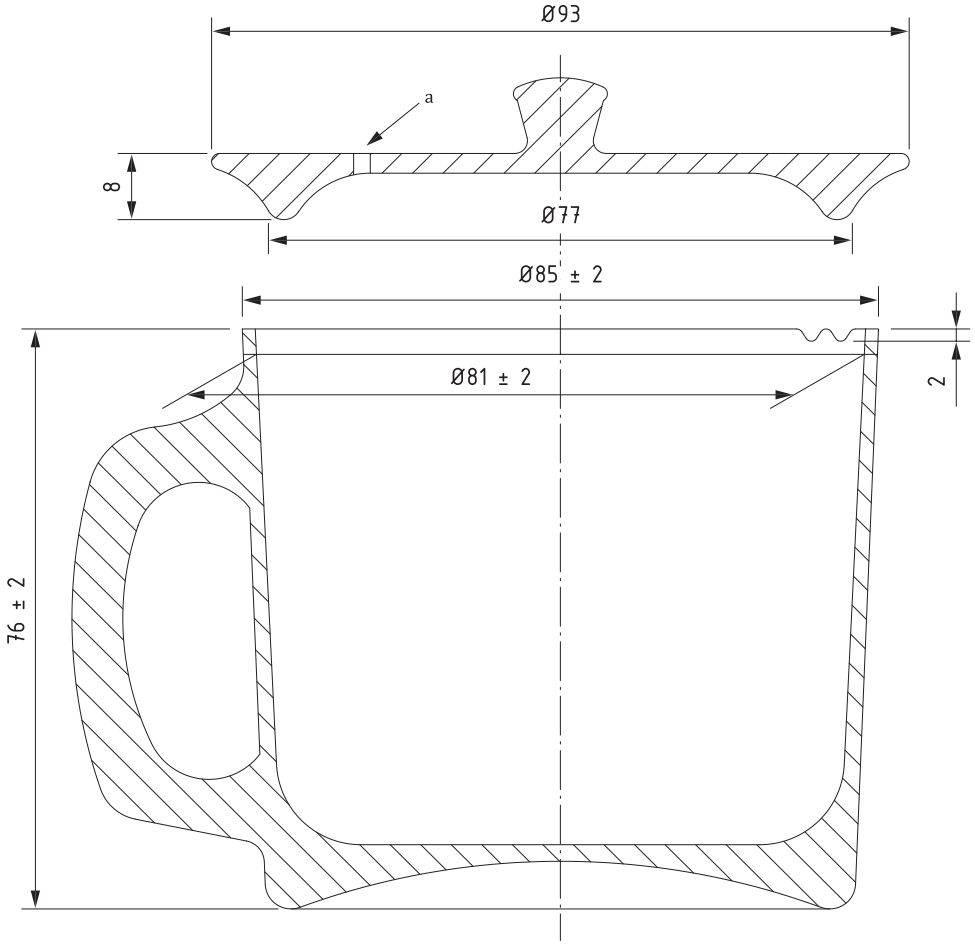
The test report shall also give all details required for the complete identification of the sample.

Annex A
(informative)

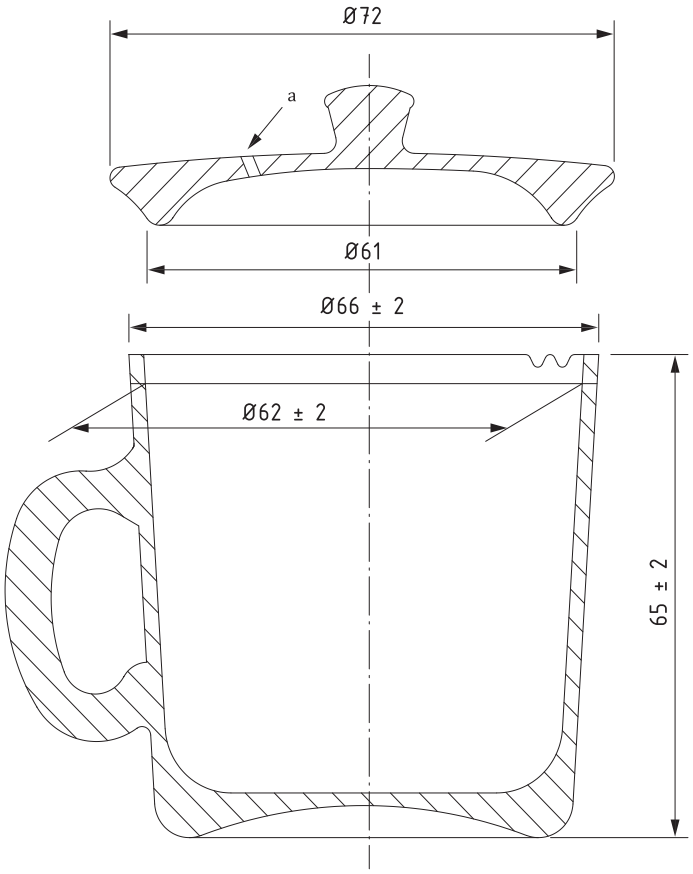
Examples of pots and bowls for the preparation of tea liquor

A.1 General

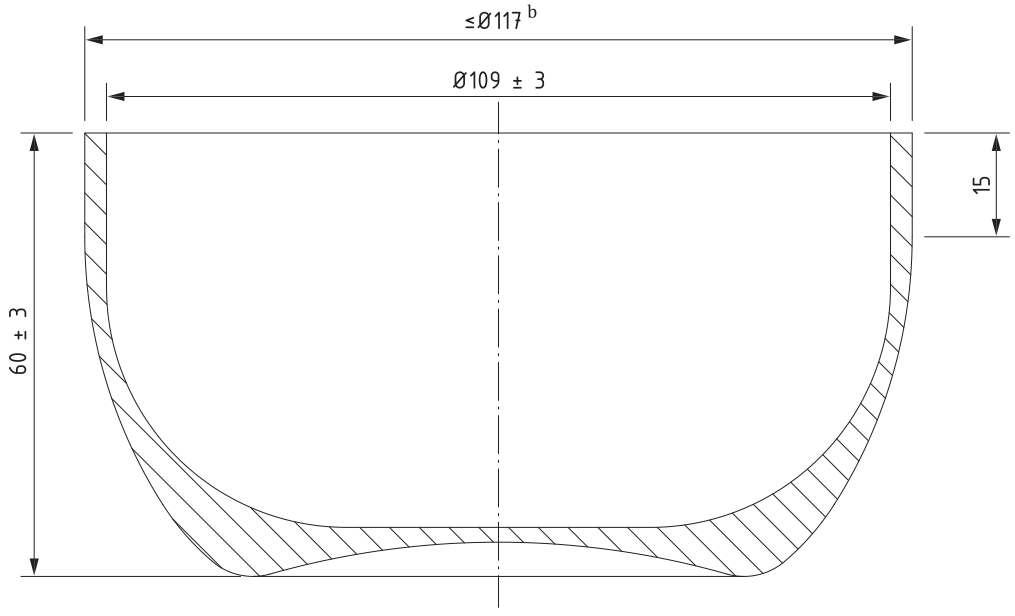
Figure A.1 shows two sizes of pots and the corresponding bowls that are in widespread use. Particulars not shown in the drawing are given in A.2, A.3 and A.4.



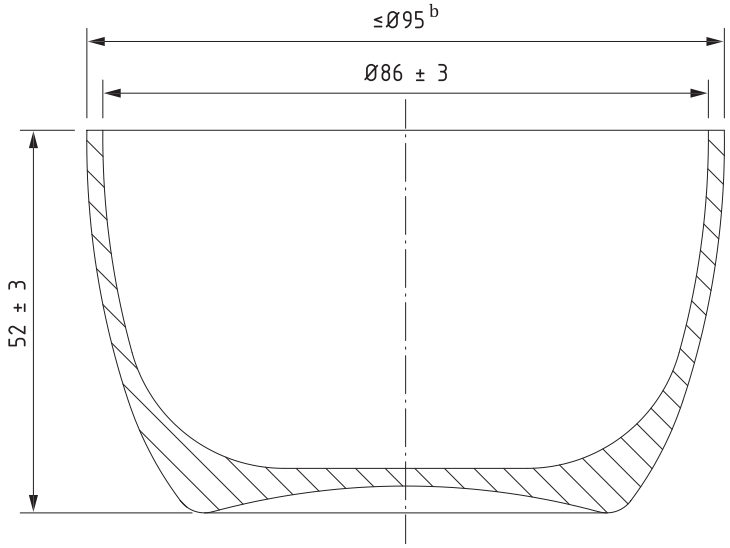
a) Large pot and lid



b) Small pot and lid



c) Large bowl



d) Small bowl

Key

a Small hole in lid to facilitate pouring.

b External diameter.

Figure A.1 — Pots and bowls for preparation of tea liquor

A.2 Pot

A.2.1 The maximum capacities, when the pots are filled to the partly serrated edge, are (310 ± 8) ml for the large pot and (150 ± 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 that should be added.

A.2.2 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 Bowl

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

NOTE The diameter of the bowl is such that the pot and lid can rest inside to drain off the liquor. The angle of the inside surface of the bowl is such as to allow the taster an uninterrupted view of the liquor without shadow.

A.4 Tolerances

A.4.1 The tolerances shown in Figure A.1 apply to the pots and bowls in use. It is recommended that tighter specification should be applied in manufacture.

A.4.2 The recommended masses are given in Table A.1. 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.

Table A.1 — Recommended masses for pots and bowls

Pot without lid	Large	(200 ± 10) g
	Small	(118 ± 10) g
Bowl	Large	(200 ± 20) g
	Small	(105 ± 20) g

Bibliography

[1] ISO 3720:2011, *Black tea — Definition and basic requirements*

[2] ISO 11287:2011, *Green tea — Definition and basic requirements*

Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act*, 2016 to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

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Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the website-www.bis.gov.in or www.standardsbis.in.

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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