International Standard 1574

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Tea — Determination of water extract

Thé — Détermination de l'extrait à l'eau

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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 1574 was developed by Technical Committee ISO/TC 34, *Agricultural food products*.

This second edition was submitted directly to the ISO Council, in accordance with clause 5.10.1 of part 1 of the Directives for the technical work of ISO. It cancels and replaces the first edition (i.e. ISO 1574-1975), which had been approved by the member bodies of the following countries :

Australia	India	Spain
Brazil	Iran	Sri Lanka
Canada	Israel	Thailand
Chile	Korea, Rep. of	Turkey
Colombia	Netherlands	United Kingdom
Czechoslovakia	Poland	USA
Egypt, Arab Rep. of	Portugal	USSR
France	Romania	
Hungary	South Africa, Rep. of	

No member body had expressed disapproval of the document.

Tea — Determination of water extract

1 Scope and field of application

This International Standard specifies a method for the determination of the water extract from tea.

2 Reference

ISO 1572, *Tea — Preparation of ground sample of known dry matter content.*

3 Definition

For the purpose of this International Standard, the following definition applies :

water extract : The soluble matter extracted from a test portion by boiling water under the conditions specified.

4 Principle

Extraction of soluble matter from a test portion of the product by means of water boiling under reflux, filtration, evaporation of the filtrate to dryness and weighing of the residue.

5 Apparatus

Usual laboratory apparatus, and the following items :

5.1 Constant-temperature oven, capable of being controlled at 103 ± 2 °C.

5.2 Steam bath.

5.3 Desiccator, containing an efficient desiccant.

5.4 Analytical balance.

5.5 Dish, fitted with a cover, of capacity 50 ml.

5.6 Volumetric flask, of capacity 500 ml.

5.7 Boiling flask, of capacity 500 ml, fitted with a reflux condenser.

5.8 Pipette, of capacity 50 ml.

6 Sample

Use a ground sample of known dry matter content, prepared as specified in ISO 1572.

7 Procedure

7.1 Preparation of the dish

Remove the cover from the dish (5.5) and heat both for 1 h in the oven (5.1) at 103 ± 2 °C. Fit the cover, cool in the desiccator (5.3) and weigh to the nearest 0,001 g.

7.2 Test portion

Weight, to the nearest 0,001 g, about 2 g of the ground sample (clause 6) into the 500 ml boiling flask (5.7).

7.3 Determination

Add to the test portion 200 ml of hot distilled water, or water of at least equivalent purity, and reflux gently for 1 h, rotating the flask occasionally. Cool to about 20 °C, then transfer quantitatively into the volumetric flask (5.6) and make up to the mark with water. Mix thoroughly and filter through dry filter paper[1].

Pipette 50 ml of the filtrate into the prepared dish (7.1) and evaporate to dryness on the steam bath (5.2). Remove the cover, heat the dish and contents in the oven (5.1), at 103 ± 2 °C for 2 h, replace the cover, and cool in the desiccator (5.3). Heat again for 1 h, cool in the desiccator and weigh; repeat these operations, if necessary, until the difference between two successive weighings does not exceed 0,002 g.

7.4 Number of determinations

Carry out two separate determinations on the same ground sample (clause 6).

1) Filter paper for general analytical use is suitable.