
International Standard



6670

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

Instant coffee in cases with liners — Sampling

Café soluble en caisses doublées — Échantillonnage

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (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 authorized 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 6670 was developed by Technical Committee ISO/TC 34, *Agricultural food products*, and was circulated to the member bodies in April 1982.

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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:

Netherlands

Instant coffee in cases with liners — Sampling

0 Introduction

This International Standard is based on ISO 4072, *Green coffee in bags — Sampling*, but differs according to the particular nature and requirements of instant coffee, and separate experience.

The terminology used is generally in accordance with ISO 3534, *Statistics — Vocabulary and symbols*.

1 Scope and field of application

1.1 This International Standard specifies a method of sampling a consignment of instant coffee, shipped in ten cases or more, for the purpose of examination to determine whether the consignment complies with a contract specification.

The cases used have inner linings of moisture-resistant material, hermetically sealed because of the hygroscopic nature of instant coffee, and are in units greater than 10 kg nett mass, typically of 40 kg. The cases are generally made of cardboard of appropriate strength.

1.2 The method may also be used for the selection and preparation of a sufficiently representative sample of the consignment, intended

- a) to serve as a basis for an offer for sale;
- b) for examination to verify that the instant coffee to be offered for sale satisfies the producer's sales specification;
- c) for examination to determine one or more of the characteristics of the instant coffee for technical, commercial, administrative and arbitration purposes;
- d) for retention as a reference sample for use, if required, in litigation.

In practice, consignments of instant coffee are often blended in use and before packing.

1.3 This International Standard applies to all types of instant coffee, as defined in ISO 3509, contained in cases with liners.

1.4 A special procedure for sampling instant coffee comprising especially fragile particles, for examination, in particular, for bulk density and particle size, is also described in annex B, if required.

2 Reference

ISO 3509, *Coffee and its products — Vocabulary*.

3 Definitions

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

3.1 consignment: The quantity of instant coffee in cases, dispatched or received at one time and covered by a particular contract or shipping document. It may be composed of one or more lots.

3.2 lot: A part of a consignment or a consignment, from one source, presumed to be of uniform characteristics and with similar identifying codes, consisting of not more than 1 500 cases of the same type and mass, containing instant coffee assumed to have common properties of reasonably uniform character and to which a given scheme of examination can be applied.

3.3 damaged cases: Cases having liners which are torn, indicating possible damage to, or contamination of, the instant coffee therein, or cases which are soiled or otherwise contaminated, in such a way as is likely to cause contamination of the instant coffee itself.

3.4 sample: A part of a lot, from which the properties of the lot are to be estimated by examination, i.e. the cases which have been selected.

3.5 increment: The quantity of 100 ± 20 g of instant coffee taken from a single case of a specific lot.

3.6 bulk sample: The quantity of not less than 1000 g of instant coffee obtained by combining all the increments (3.5) taken from the cases of a specific lot.

3.7 blended bulk sample: The quantity of instant coffee obtained by combining and blending all the increments (3.5) taken from the cases of a specific lot.

3.8 laboratory sample: The quantity of not less than 300 g of instant coffee taken from the blended bulk sample (3.7) of a specific lot, without altering its composition.

4 Administrative arrangements

4.1 Sampling personnel

Sampling shall be carried out by experienced samplers or samplers qualified by training and experience, or shall be carried out by specialized sampling organizations.

4.2 Sampling

Sampling shall be carried out on apparently sound cases and liners in a sheltered place in such a manner as to protect the samples, the sampling apparatus and the containers and packages intended to receive the samples against contamination.

Sampling should be carried out in such a way that there is minimal moisture change in the sample, for example by sampling in an air-conditioned room.

The sampler shall report any damaged cases and liners and shall not include increments taken from such cases in the bulk sample.

If damaged cases or liners are present, the sampler shall check all the lot for damage.

4.3 Sampling report

After preparation of the sample, a sampling report shall be prepared (see clause 10).

5 Identification and general inspection of the lot prior to sampling

Before any samples are taken, positively identify the lot.

6 Sampling equipment

6.1 Multi-level trier (see annex A).

6.2 Scoop (see annex B).

7 Sample containers and packages

The containers and packages mentioned in 4.2, together with their closure systems, shall be clean and dry and shall be made from materials which do not affect the odour, flavour or composition of the samples.

They shall be sufficiently robust to withstand hazards during transport, and shall preserve the samples unchanged for the appropriate period, with particular reference to the hazards of moisture absorption.

8 Procedure

8.1 Taking increments

8.1.1 The exact number of cases to be selected shall be the subject of prior agreement between the interested parties.

8.1.2 Take the cases to be sampled according to a system of random numbers.

Then open the cases, break the seal of the inner liner, and take the increment using the multi-level trier according to the instructions for its use (see annex A).

In the case of instant coffee with especially fragile particles, it is necessary, in order to obtain a sample which is more representative of the physical characteristics (bulk density and particle size), to use the alternative procedure described in annex B.

NOTE — In order to obtain a bulk sample of 1 000 g (see 3.6), it may be necessary to take more than one increment from each case.

8.1.3 After taking the increments, reseal the inner liners and close the case.

8.2 Preparation of samples

8.2.1 Bulk sample

Examine the increments as they are taken. If they are evidently homogeneous, combine them in a container. Label the bulk sample obtained (see clause 9).

If there is a noticeable lack of homogeneity amongst the increments, keep them separate and report this condition in the sampling report (see clause 10).

Samples taken from damaged cases or liners shall not be included in the bulk sample.

8.2.2 Blended bulk sample

Remove the bulk sample (8.2.1) from its original container and thoroughly mix it, but avoid unnecessarily rough handling that may result in excessive breakage of the particles.

8.2.3 Laboratory sample

Prepare each laboratory sample by removing a quantity of not less than 300 g from the blended bulk sample (8.2.2). Thoroughly mix the laboratory sample, but avoid unnecessarily rough handling. More than one laboratory sample may be required.

9 Packing and marking of samples

9.1 Precautions to be taken when packing samples

The containers shall be moisture-proof, fitted with an airtight closure and shall be completely filled with instant coffee. The closure system shall be selected to prevent subsequent loss or tampering.

9.2 Marking

The samples shall be identified by recording the following information on the container, or on a label affixed to the container, unless there is a stipulation to the contrary in the contract:

- a) Date of sampling
- b) Name of sampler
- c) Shipping document or contract No.
- d) Ship (or other transport vehicle)
- e) Location
- f) Identifying numbers
- g) Quantity
- h) Mass of the sample

10 Sampling report

The sampling report shall give all information relevant to the method of sampling and shall refer to the presence of damaged cases, the type(s) of damage and the approximate number of damaged cases in the lot.

Any other pertinent observation concerning the condition of the lot shall also be included.

The sampler shall report the conditions in the region of the lot, especially with respect to any potentially contaminating material in the vicinity, and conditions (relative humidity) relative to moisture absorption (if accurate assessment of the dry matter content in the cases is required).

11 Precautions during storage and transport of samples

11.1 Laboratory samples shall be dispatched to the place of examination as soon as possible after preparation.

A copy of the sampling report (see clause 10) shall be sent with them.

11.2 After taking the laboratory samples, the blended bulk sample from each lot shall be retained for further use if required, until final acceptance of the consignment by the purchaser.

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Annex A

Special multi-level trier

A.1 Description (see the figure)

The multi-level trier is a special grain-type trier, of length approximately 1 m, constructed of two tubes, rotatable within each other (external diameter 35 mm), with six slotted openings (slightly staggered).

The inner tube has, at one end, an open handle, which may be turned to either open or close the slotted openings. The outer tube has a solid point.

The tubes are generally constructed of brass and the pointed end of solid brass, but they may be constructed of other materials which are sufficiently strong and corrosion-resistant.

The trier is suitable for use with cases of height 1 m, containing 40 kg of instant coffee; shorter or longer designs may be used for shallower or deeper boxes, containing different masses of instant coffee.

The trier shown in the figure has a capacity of 0,45 dm³, corresponding to approximately 100 g of instant coffee.

A.2 Method of use

A.2.1 Carefully insert the trier with its handle in the closed position, with the opened case of instant coffee at approximately the centre of the opening until the trier rests on the bottom of the case.

The case shall be in the upright position, but the trier may be slightly inclined with the openings uppermost.

A.2.2 Rotate the handle to the open position, and thus allow the instant coffee to enter the openings of the trier.

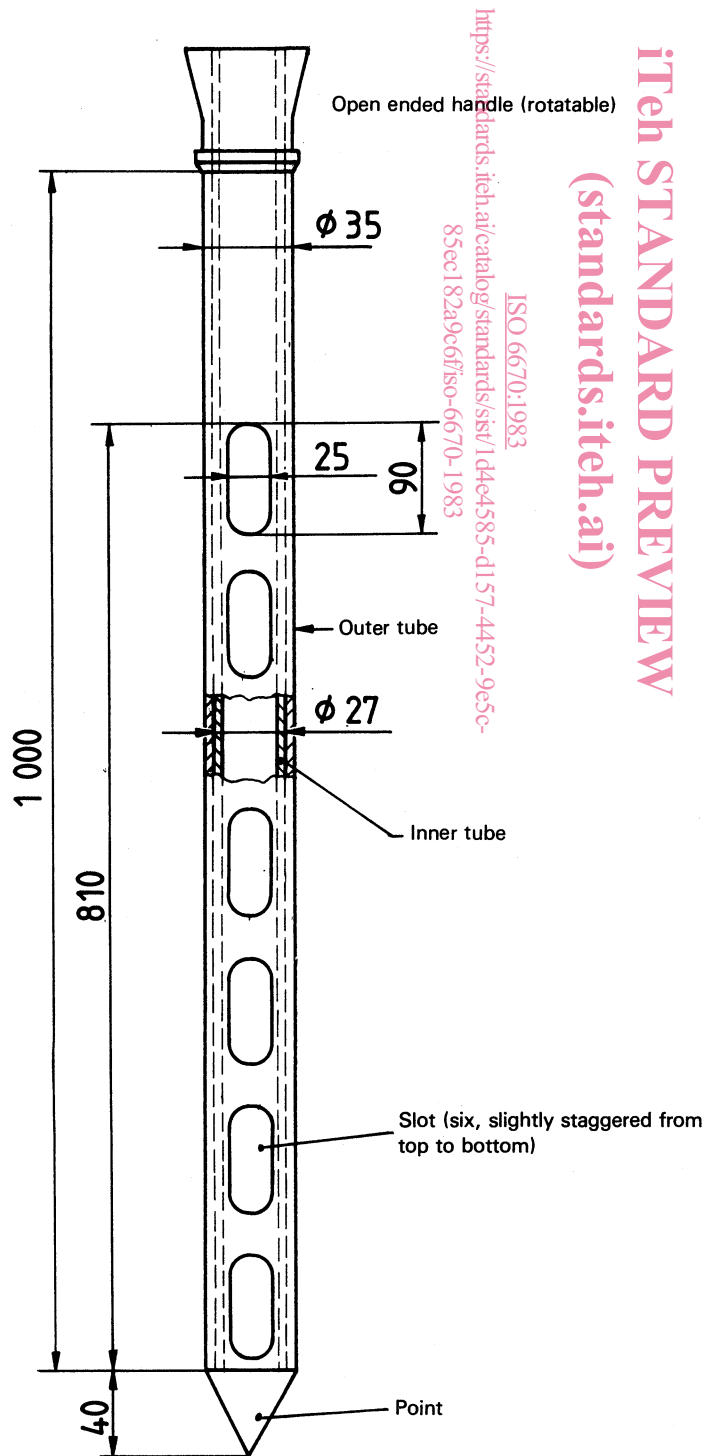
A.2.3 Turn the handle to the closed position and remove the trier.

A.2.4 Empty the contents of the trier into a container, through the open handle, by inverting the trier.

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Dimensions in millimetres



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Figure – Multi-level trier

Annex B

Special sampling method for preservation of the characteristics of bulk density and particle size

B.1 Apparatus

B.1.1 Metal scoop, of capacity corresponding to approximately 50 g of instant coffee.

of instant coffee by means of the metal scoop (B.1.1) three portions at approximately the beginning, middle and end of the transfer to provide a representative increment of approximately 100 g.

B.2 Procedure

Take each of the cases selected and, in turn, tip their contents into a new, lined case. During the transfer, take from the flow

Treat the increments by the procedure specified in 8.2. Then hermetically seal the liner of the new case.

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