
INTERNATIONAL STANDARD



1447

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Green coffee — Determination of moisture content (Routine method)

Café vert — Détermination de la teneur en eau (Méthode de routine)

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FOREWORD

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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 1447 was developed by Technical Committee ISO/TC 34, *Agricultural food products*.

It was submitted directly to the ISO Council, in accordance with clause 6.12.1 of the Directives for the technical work of ISO. It cancels and replaces ISO Recommendation R 1447-1970, which had been approved by the member bodies of the following countries :

Brazil	Israel	Spain
Chile	Norway	Turkey
France	Poland	United Kingdom
Hungary	Portugal	U.S.S.R.
India	Romania	
Iran	South Africa, Rep. of	

The member bodies of the following countries had expressed disapproval of the document on technical grounds :

Colombia
Czechoslovakia
Netherlands
U.S.A.

Green coffee — Determination of moisture content (Routine method)

0 INTRODUCTION

The routine method for the determination of the moisture content of green coffee is based on the principle of the compensation of errors leading to a low result (moisture not completely removed, oxidation of products) and errors leading to a high result (removal of substances other than water).

It is observed, indeed, that the loss in mass after the first period in the oven is less than the moisture content determined by the basic reference method (ISO 1446) and that the total loss in mass after the second period of drying is greater than this moisture content. The loss in mass after the first period in the oven may, therefore, be considered as an underestimate of the moisture content.

The compensation between these two errors is made by means of an empirical correction determined experimentally.

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a routine method for the determination of the moisture content of green coffee.

2 REFERENCES

ISO 1446, *Green coffee — Determination of moisture content (Basic reference method)*.

ISO 4072, *Green coffee in bags — Sampling*.¹⁾

3 DEFINITION

moisture of green coffee : Conventionally, the loss in mass determined under the operating conditions specified below.

The moisture content is expressed as a percentage by mass.

4 PRINCIPLE

Drying of a test portion at a temperature of $130 \pm 2^\circ\text{C}$, at atmospheric pressure, in two stages with an intermediate rest period, in order to redistribute uniformly the moisture in the bean.

The result thus obtained, after a correction has been applied, is regarded as agreeing with that provided by the basic reference method (ISO 1446).

5 APPARATUS

5.1 Electrically heated constant-temperature oven having effective ventilation and capable of being regulated in such a way that the temperature of the air and of the shelves carrying the test portions is $130 \pm 2^\circ\text{C}$ in the vicinity of the test portions.

The oven shall have a heating capacity such that having been set at a temperature of 130°C , it is able to regain this temperature in less than 45 min (preferably in less than 30 min) after the insertion of the maximum number of test portions that can be dried simultaneously.

5.2 Dish with lid, of corrosion-resistant metal or of glass, with an effective surface area of at least 18 cm^2 (for example 50 mm minimum diameter and 25 to 30 mm deep).

5.3 Desiccator containing reagent-grade phosphorus(V) oxide (P_2O_5) or any other effective dehydrating agent.

5.4 Analytical balance.

6 PROCEDURE

6.1 Test portion

Weigh the dried dish (5.2) with its lid, to the nearest 0,002 g. Introduce approximately 5 g of green coffee taken from the laboratory sample obtained as specified in ISO 4072. Spread this test portion over the bottom of the dish in a single layer of beans. If the test portion contains a heavy impurity (nail, stone, piece of wood, etc.), discard the test portion and take a new portion from the laboratory sample. Cover the dish with its lid and weigh the dish plus lid plus test portion to the nearest 0,002 g. (See 8.1.)

1) At present at the stage of draft.