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Cocoa beans — Determination of moisture content (routine method)

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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 2291 was drawn up by Technical Committee ISO/TC 34, *Agricultural food products.*

It was approved in September 1971 by the Member Bodies of the following countries :

Brazil	India	South Africa, Rep. of
Bulgaria	Ireland	Spain
Ceylon	Israel	Sweden
Chile	Netherlands	Thailand
Egypt, Arab Rep. of	New Zealand	Turkey
France	Poland	United Kingdom
Germany	Portugal	
Hungary	Romania	

The Member Body of the following country expressed disapproval of the document on technical grounds :

Austria

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Cocoa beans — Determination of moisture content (routine method)

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a routine method for the determination of the moisture content of cocoa beans.

2 REFERENCE

ISO 2292, *Cocoa beans — Sampling.*[1)]

3 DEFINITION

By **moisture content** of cocoa beans is conventionally understood the loss in mass determined under the conditions of the method described.

The moisture content is expressed as a percentage by mass.

4 PRINCIPLE

Drying of the cocoa beans, after crushing, in an oven regulated at 103 °C, for 16 h.

5 APPARATUS

Usual laboratory equipment not otherwise specified, and the following items :

5.1 Pestle and mortar, which permit the beans to be crushed without heating.

5.2 Ventilated oven, preferably fitted with a fan, capable of being maintained at 103 ± 2 °C.

5.3 Dish with lid, of metal resistant to corrosion under the conditions of the test, or of glass, with at least 35 cm^2 effective surface (for example minimum diameter 70 mm) and 20 to 25 mm deep.

5.4 Desiccator, containing an effective desiccant.

5.5 Analytical balance.

6 PROCEDURE

6.1 Preparation of sample

Carefully mix the final lot sample (laboratory sample) obtained by the method specified in ISO 2292.

By successive reductions of the mixed sample, take approximately 10 g of cocoa beans. Crush these beans roughly in the mortar (5.1), within 1 min, so that the greatest dimension of the particles does not exceed about 5 mm, while avoiding the formation of a paste. It is advisable to crush the beans individually, placing them in the mortar one by one.

The beans taken shall be representative of the laboratory sample.

6.2 Test portion

Tare the empty dish (5.3) and its lid, dried beforehand; place in it quickly a test portion comprising practically all the quantity of beans prepared as described in 6.1.

Cover the dish with its lid and weigh to the nearest 0,000 2 g.

6.3 Determination

Place the dish (5.3) containing the test portion in the oven (5.2) at 103 ± 2 °C, on its lid. Keep it there for 16 ± 1 h, taking care not to open the oven. At the end of this period, remove the dish, cover it immediately with its lid and place it in the desiccator (5.4). After cooling to ambient temperature (30 to 40 min approximately after placing in the desiccator), weigh it, still covered, to within 0,000 2 g.

Carry out two determinations, each on a quantity of beans which has been treated individually : crushing, taking of test portion and drying.

6.4 Note on procedure

The crushing and weighing operations for each determination shall be carried out as rapidly as possible,

1) At present at the stage of draft.