



DRAFT TANZANIA STANDARD

Determination of moisture in cocoa products

DRAFT STANDARD FOR PUBLIC COMMENTS ONLY

0. Foreword

This draft Tanzania standard prescribes the method for determination of Moisture in Cocoa Products.

In the preparation of this draft Tanzania standard assistance was derived from AOAC Official Method 931.04 Moisture in Cacao Products

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 TZS 4

1.0. Scope

This Standard specifies the determination of moisture in cocoa products.

2.0 Principle

After grinding, weighing and drying of cocoa beans for 16 h in a ventilated oven controlled at $103\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$, determine the moisture content by calculating the difference in mass.

3.0. Apparatus

- 3.1. Grinder, which allows the beans to be ground without heating.
- 3.2. Ventilated oven, preferably fitted with a fan, capable of being controlled at $103\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$.
- 3.3. Dish with lid, of metal, resistant to attack under the conditions of the test, or of glass, with at least 35 cm^2 of useful surface (for example minimum diameter 70 mm) and 20 mm to 25 mm deep.
- 3.4. Desiccator, containing an efficient desiccant.
- 3.5. Analytical balance, with a readability of 1 mg.

4 Procedure

- 4.1. Grind a fraction of one quarter of the sample with a grinder to form particles that do not exceed 5 mm, but avoiding the formation of a paste.
- 4.2. Weigh the previously dried empty dish with lid After grinding the beans in accordance with 4.1. quickly place in the dish a test portion of 10 g. Weigh the dish with lid, containing the grinded test portion, to the nearest 1 mg.
- 4.3. Place the dish containing the test portion on its lid in the ventilated oven controlled at $103\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$. Leave for $16\text{ h} \pm 1\text{ h}$, 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. Allow to cool to

ambient temperature (approximately 30 min to 40 min after placing in the desiccator) and weigh, still covered, to the nearest 1 mg.

5. calculation

The moisture content of the reference sample, expressed as a percentage by mass,

$$(m_1 - m_2) \times \frac{100}{m_1 - m_0}$$

where

m_0 is the mass of the empty dish with lid, in g;

m_1 is the mass of the dish with lid and the test portion before drying, in g;

m_2 is the mass of the dish with lid and the test portion after drying, in g.

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