

**DRAFT TANZANIA STANDARD**

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**Cookies– Specification**

FOR PUBLIC COMMENTS ONLY

**TANZANIA BUREAU OF STANDARDS**

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## 0 Foreword

This Tanzania standard stipulates the compositional requirements for all cookies marketed in Tanzania so as to enhance fair trade practices in cookies.

This standard was prepared to ensure safety and quality of these products as the measure to safeguard the health of the consumers.

In the preparation of this Tanzania Standard assistance was drawn from the following publication:-  
KS 661:2007 Cookies – Specification, published by Kenya Bureau of Standards (KEBS)  
IS 1011:2002 Biscuits – Specification, published by Bureau of India Standards (BIS)

In reporting the results of a test or analysis made in accordance with this Tanzania Standard, if the final value observed or calculated is to be rounded off, it shall be done in accordance with TZS 4 (see clause 2).

## 1.0 Scope

This Tanzania Standard prescribes the requirements, methods of sampling and test for cookies baked from batter intended for direct human consumption.

## 2.0 Reference

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies:

*TZS 4 Rounding off numerical values*

*TZS 136 Biscuits - Specification*

*TZS 102 Bread - Specification*

*Codex Stan 192 Codex General standard for food additives*

*TZS 1335 Animal and vegetable fats and oils-Determination of*

*Copper, iron and nickel content-graphite furnace atomic absorption*

*TZS 268 General atomic absorption spectrophotometric method for determination of lead in food stuffs.*

*TZS 76 Methods for determination of arsenic content.*

*TZS 109 Food processing units - Code of hygiene – General*

*TZS 111 Bakery and biscuits manufacturing units – code of hygiene*

*TZS 538 Packaging and labeling of foods*

*TZS 118 Microbiology of food and animal feeding stuffs – Horizontal method for enumeration of micro-organisms - Colony count technique at 30°C*

*TZS 122 Microbiology of food and feeding stuffs – Horizontal method for the detection of salmonella spp*

*TZS 125 Microbiology of food and animal feeding stuffs – Horizontal method for enumeration of coagulase – Positive staphylococci staphylococcus aureus and other species)*

*TZS 131 Microbiology -General guidance for enumeration of yeast and moulds - Colony count technique at 25°C*

*TZS 731 Microbiology of food and feeding-stuffs– Horizontal method for the detection and enumeration of presumptive Escherichia coli – Most Probable Number Technique*

*TZS 101 Refined sugar – Specification*

*TZS 100 Plantation white sugar – Specification*

*TZS 789 Drinking potable water – Specification*

*TZS 439/EAS 767 Wheat flour – Specification*

*TZS 132/EAS 35 Fortified food grade salt – Specification*

*TZS 48 Margarine – Specification*

*TZS 272 Hardened vegetable fats – Specification*

### **3.0 Terms and definitions**

For the purpose of this standard the following terms and definitions shall apply:

#### **3.1 cookies**

Is a baked food that is small flat and sweet usually containing flour, sugar and some types of oil or fats. These may be further enriched by incorporation of nuts, dry fruits, chocolates, etc. This product has a very high sugar and fat content as compared to biscuits.

#### **3.2 filled cookies**

Are cookies sandwiched with the filling of cream, jam, jelly, 'marshmallic caramel', figs, raisins or similar products.

#### **3.3 cream**

a homogeneously mixed preparation of hydrogenated fat or bakery shortening, icing sugar, flavours and approved food colours with or without other permitted ingredients in small proportions.

#### **3.3 coated cookies**

Are cookies with or without the filling in-between, but coated with chocolate or caramel or icing sugar

#### **3.4 garnished cookies**

Are cookies decorated with nuts, fruits, cherries, jelly crystals or candy crystals firmly set onto the product.

#### **3.5 batter**

a mixture of flour, milk or water, eggs and sugar etc, beaten together for use in cookery/baking.

### **4.0 Requirements**

#### **4.1 General requirements**

**4.1.1** Cookies shall be properly baked with no signs of under or over baking so that they are crispy have uniform texture, tenderness and appearance.

**4.1.2** Cookies shall be of same size and design within the group.

**4.1.3** They shall have a typical flavor of well baked cookies of different types and shall be free from any soapy or bitterness and odour.

NOTE-The appearance, taste, odour, flavor and tenderness shall be determined by organoleptic sensory evaluation panels.

#### **4.2 Essential ingredients**

The following ingredients shall be used in the preparation of cookie batter.

**4.2.1 Wheat flour**, complying with the requirements of TZS 439/EAS 767.

**4.2.2 Fat or shortening**, hydrogenated edible vegetable oil, shortenings, refined edible oil, margarine complying with TZS 48 or TZS 272

**4.2.3 Water**, potable water complying with TZS 789.

**4.2.4 Edible common salt**, complying with the requirements of the TZS 132/EAS 35.

**4.2.5 Sugar**, complying with the requirements of the TZS 101 or 100

### **4.3 Optional ingredients**

In addition to the essential ingredients specified in **4.2** any of the following categories of the ingredients complying with the relevant Tanzania standard may be used in the preparation of the cookie batter. The ingredients are not limited to the examples provided.

#### **4.3.1 Cereal and cereal products**

- i. Maize meal/ flour
- ii. Whole wheat flour
- iii. Atta flour
- iv. Semolina or sooji
- v. Wheat bran
- vi. Barley flour
- vii. Oat flour
- viii. Rice flour
- ix. Malt flour
- x. Sorghum flour/Millet flour

#### **4.3.2 Oil seed products**

- i. Soya bean flour (full fat or solvent extracted)
- ii. Peanuts (groundnuts)
- iii. Edible cotton seed flour
- iv. Edible groundnut flour, expeller pressed or solvent extracted

#### **4.3.3 Edible starches**

- i. Tapioca flour
- ii. Potato flour
- iii. Sweet potato flour
- iv. Arrow root starch
- v. Maize starch
- vi. Rice starch

#### **4.3.4 Milk and milk products**

- i. Edible Casein
- ii. Milk powder (whole and skim)
- iii. Butter milk and its solids
- iv. Liquid milk
- v. Condensed milk
- vi. Cheese
- vii. Whey solid
- viii. Malted milk food

#### **4.3.5 Sugar**

- i. Sugar(sucrose)
- ii. Liquid glucose
- iii. Dextrose monohydrate
- iv. Jaggery
- v. Molasses
- vi. Lactose
- vii. Malt extract
- viii. Invert syrup
- ix. Honey

#### **4.3.6 Fruit and fruit products**

- i. Desiccated coconut
- ii. Dry fruits
- iii. Edible nuts
- iv. Pectin
- v. Jam
- vi. Jelly
- vii. Cherries

#### **4.3.7 Spices**

- i. Ginger
- ii. Black pepper
- iii. Saffron
- iv. Ajwan
- v. Cardamon
- vi. Cumin

#### **4.3.8 Miscellaneous**

- i. Coffee powder
- ii. Cocoa powder
- iii. Covering chocolate
- iv. Edible vegetables

#### **4.3.9 Enzymes and gluten conditioners**

- i. Proteolytic and amylases
- ii. Sodium bisulphite
- iii. Sodium metabisulphite
- iv. Improvers

#### **4.3.10 Leavening agents**

- i. Baking powder
- ii. Ammonium carbonate
- iii. Active bakers yeast(*Saccharomyces cerevisiae*)
- iv. Any other approved aerating agent.

#### **4.3.11 Fortifying agents**

- i. Vitamins and minerals
- ii. Lysine monohydrochloride
- iii. Protein concentrates

#### **4.3.12 Processing aids**

- i. Calcium phosphate
- ii. Calcium diphosphate

- iii. Calcium triphosphate
- iv. Calcium carbonate

#### 4.3.13 Eggs or egg products

#### 4.4 Specific requirements

Cookies shall comply with the compositional requirements given in Table 1

**Table 1 – Compositional requirements for cookies**

S/No	Characteristic	Requirement	Test method
1	Moisture, % by mass, max.	6.0	TZS 136
2	Acid insoluble ash (on dry basis), % by mass, max.	0.05	
3	Free fatty acid % by mass, max.	1.0	

#### 4.5 Food additives

Only the food additives permitted by CODEX STAN 192 in the manufacture of cookies may be used without exceeding the limits.

#### 5.0 Hygiene

**5.1** Cookies shall be prepared and packaged in premises built and maintained under hygienic condition in accordance with TZS 109 and TZS 111(see clause 2). **5.2** Cookies shall be free from pathogenic organisms and shall comply with microbiological limits in Table 2.

**Table 2 – Microbiological limits for cookies**

S/No	Types of micro-organism	Maximum Limits	Test methods
1	Yeast and mould count (CFU per g), max.	10 <sup>2</sup>	TZS 131
2	<i>Escherichia coli</i> (MPN per 1g)	absent	TZS 731
3	Salmonella in 25g	absent	TZS 122

## 6.0 Contaminants

Cookies shall comply with the heavy metal contaminants limits stipulated in Table 3.

**Table3. Requirements for Heavy metal in cookies**

S/No	Contaminant	Maximum limits (mg/kg)	Test method
1	Lead (Pb)	0.5	TZS 268
2	Copper (Cu),	2.0	TZS 1335
3	Arsenic (Ar)	1.0	TZS 76

## 7.0 Sampling and method of test

### 7.1 Sampling

Sampling of cookies shall be done in accordance with TZS 102.

### 7.2 Test method

Test shall be carried out as prescribed in the appropriate appendices specified in table 1, 2 and 3.

## 8.0 Packaging, Marking and labeling

### 8.1 Packaging

**8.1.1** The cookies shall be packaged in clean, sound food grade containers that will ensure the safety and quality of the product throughout handling and the shelf life. Containers made of tin plate, PCRC sheets, cardboard, paper may be used.

### 8.2 Marking and labelling

**8.2.1** Labelling of cookies shall be done in accordance with the requirements of the TZS 538(EAS 38) and the following particulars shall be clearly and indelibly marked on each pack of cookies on the outer side of the wrapper; printing ink if any, shall be non-toxic and non-transferable:

- i) Name of the product,
- ii) Name and physical address of the manufacturer,
- iii) Batch or code number,
- iv) Net weight, in grams (g) or kilograms (kg),
- v) List of ingredients in descending order of proportion,
- vi) Date of manufacture,
- vii) Expiry date,
- viii) Country of origin,
- ix) Storage instructions,
- x) Instruction for the disposal of packaging waste.
- xi) The statement with respect to addition of permitted colours and flavours

**8.2.2** The language on the label shall be “Kiswahili” or Kiswahili and English. A second language may be used depending on the designated market.

**8.3** The packages of the buns may also be marked with the TBS certification mark.

NOTE - The TBS Standards Mark of Quality may be used by the manufacturers only under licence from TBS. Particulars of conditions under which the licences are granted, may be obtained from TBS.

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