

DRAFT TANZANIA STANDARD

Cakes – Specification

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TANZANIA BUREAU OF STANDARDS

0 Foreword

Cake production is a science in itself, combining microbiology, chemistry and physics. Cakes should retain the precise texture, shape and volume and should remain soft, moist and maintain shelf-life for an extended period.

This Tanzania standard covers all types of cakes currently marketed in Tanzania. The compositional requirements for various types of cakes have been stipulated to ensure that appropriate ingredients levels are applied during processing to ensure safety and quality of these products as the measure to safeguard the health of the consumers.

In the preparation of this Draft Tanzania Standard assistance was drawn from the following publication:-
KS 1042:2007 *Cakes – Specification*, published by Kenya Bureau of standards (KEBS)
IS 9712:1981 *Specification for cakes*, published by Bureau of Indian 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 cakes intended for direct human consumption. This standard applies to plain cakes, fruitcakes, sponge cakes and speciality cakes.

2.0 References

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

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 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 102 Bread – Specification

3.0 Terms and definitions

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

3.1 cake-

is a soft baked flour confectionery product made from wheat flour, eggs, shortenings, sugar and other ingredients such as baking powder.

3.2 plain cake

Is a cake baked from basic ingredients with or without the addition of the permitted food additives.

3.3 fruitcakes

Is a plain cake to which fruits in either dry or preserved form have been added.

3.4 sponge cake

Is a plain cake in which more eggs have been used as an ingredient

3.5 speciality cake

Is a decorated cake, which has been baked for a special function, or purpose into which other ingredients are added such as, cake fillings. Examples include birthday cakes, wedding cakes and others.

4.0 Requirements

4.1 General requirements

4.1.1 Cakes shall be well baked with no signs of under baking or over baking.

4.1.2 Cakes shall be moist, uniform in texture and with even distribution of added ingredients.

4.1.3 They shall have the colour, texture, flavour and aroma characteristics of typical well-baked cakes.

4.1.4 They shall be free from any evidence of rancidity or other objectionable tastes, insect or fungus, mould infestation and foreign matter.

NOTE – The appearance, taste and odour shall be determined by visual inspection, and by organoleptic tests.

4.2 Ingredients

All ingredients applied in cake manufacture shall be of food grade quality and conform to the relevant Tanzania Standard specifications, where available and other materials shall be free from foreign matter, insect infestation and objectionable flavours and odours.

4.2.1 Essential ingredients

Shall include wheat flour, eggs, shortenings, sugar and raising agent.

4.2.2 Optional Ingredients

In addition to the essential ingredients any or a combination of the following ingredients complying with the relevant Tanzania standard may be added to the cake batter:

- a) Candied peel (orange, lemon and grapefruits)
- b) Glazed cherries
- c) Crystallized ginger
- d) Dry fruits and nuts such as sultana, black sultana, raising, currants dates, walnuts, cashewnuts, almonds and peanuts
- e) Cocoa powder or chocolate
- f) Desiccated coconut
- g) Flavouring essences
- h) Edible oilseeds, oilseeds flours or oilseed concentrates
- i) Honey
- j) Liquid glucose
- k) Milk and milk products
- l) Spices and herbs
- m) Edible starches
- n) Glycerine

- o) Semolina
- p) Defatted or lecithinated soya flour
- q) Sorbitol liquid or sorbitol powder
- r) Molasses

4.3 Specific requirements

Cakes shall comply with the compositional requirements given in Table 1.

Table 1: Compositional requirements for cakes

Characteristic	Requirements				Methods of test
	Plain cakes	Fruit cakes	Sponge cakes	Speciality	
Moisture,% by mass	15 – 25	15 - 25	20 - 27	15 - 25	TZS 136
Acid insoluble ash (on dry matter basis), % by mass, max.	0.1	0.1	0.1	0.1	
Acidity of extracted fat (as oleic acid), % by mass, max.	1.0	0.5	1.0	1.0	
Fruit content,% by mass,min.	-	7.0	-	-	Annex A

NOTE- In fruit cakes, minimum quantity of fruits shall be not less than 7.percent of the batter when determined by the method of test given in Appendix A.

4.4 Food additives

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

5.0 Hygiene

5.1 The cakes shall be prepared and packaged under hygienic conditions in accordance with TZS 109 and TZS 111(see clause 2).

5.2 Cakes shall be free from pathogenic organisms and shall comply with microbiological limits in Table 2.

Table 2 – Microbiological limits for cakes

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

6.0 Contaminants

The acceptable limits of Heavy metal in cakes shall conform to the requirements specified in Table 3.

Table 3. Requirements for metallic contaminants in cakes

S/N	Metallic contaminants	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 cake 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 labelling

8.1 Packaging

The cakes shall be packaged in food grade materials that will ensure the safety and quality of the product throughout the shelf life.

8.2 Marking and labelling

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

- i) Name of the product,
- ii) Type of cake

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

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 containers of the cakes 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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Annex- A

Determination of fruit content

A.1 This method determines the contents of both dry fruits and preserved fruits in fruitcakes.

A.2 Equipment

A.2.1 Bread or cake knife

A.2.2 Brush

A.2.3 Filter paper or clean cloth

A.2.4 weighing balance

A.3 Method

Weigh four cake slices (approximately 100g) accurately. Pick the pieces of either preserved and/or dry fruit and wipe them with a hair brush on a filter paper or clean cloth. Weigh the fruits so collected and calculate the percentage of fruits from the mass of fruits picked out.

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