

DRAFT TANZANIA STANDARD

Cassava maize composite flour — Specification

Draft Standard for Stakeholders' Comments

TANZANIA BUREAU OF STANDARDS

0. Foreword

0.1 The demand for the cassava maize composite flour is increasing thus, the need to ensure the safety and quality of the product produced and/or marketed in Tanzania.

0.2 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 (See clause 2).

1 Scope

This draft Tanzania standard prescribes requirements, the methods of sampling and testing for cassava maize composite flour for human consumption.

2 Normative references

The following referenced documents are indispensable for the application of this document. 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

EAS 82:2000, Milled cereal products — Methods of test

TZS 109, Food Processing units- Code of hygiene

TZS 122-1:2018/ISO 6579-1: 2017 - Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of Salmonella- Part 1: Detection of *Salmonella spp.*

TZS 125-3:2018/ ISO 6888-3:2003- Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (*Staphylococcus aureus* and other species)- Part 3: Detection and MPN technique for low numbers

CODEX STAN 193, Codex general standards for contaminants and toxins in food and feed

TZS 328-1:2017/EAS 44 Milled maize (corn) products

TZS 438: 2017/ EAS 2:2017 Maize grains – Specification

TZS 465: 2010 (3rd Ed), Dried cassava chips — Specification

TZS 466: 2010 (3rd Ed), Cassava flour — Specification

TZS 472: 2010 (3rd Ed), Cassava and cassava products — Determination of total cyanogen's — Enzymatic assay method

TZS 538:2015 (EAS 38:2014) - Labelling of pre-packaged foods — General requirements

TZS 731: 2018/ ISO 7251: 2006- Microbiology of food and animal feeding stuffs- Horizontal method for the detection and enumeration of presumptive *Escherichia coli*- Most probable number technique

TZS 799: 2020 (3rd Ed)/ISO 16050 Foodstuffs-Determination of aflatoxin B1,and the total content of aflatoxins B1,B2,G1 and G2 in cereals, nuts and derived products-High performance liquid chromatographic method

TZS 961:2007/ISO 1666, Starch- Determination of moisture content - Oven-drying method

TZS 2044:2017/ISO 5985:2002 Animal feeding stuffs – Determination of ash insoluble in hydrochloric acid

TZS 2426-1: 2020/ ISO 21527-1: 2008- Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of yeasts and moulds - Part 1: Colony count technique in products with water activity greater than 0.95

ISO 24333, Cereals and cereal products- Sampling

ISO 5498, Agricultural food products — Determination of crude fibre content — General method

3 Terms and definitions

For the purpose of this standard, the following term and definition shall apply.

3.1 cassava maize composite flour

flour obtained by blending flours from dried cassava and maize or flour obtained by milling blended cassava flour/ chips and/or grits and maize flour/grits and/or grains

3.2 foreign matter

inorganic matter such as sand, glass, metal, stones, clay and mud and organic matter such as chaff, straw, weed seeds and insects or insects' fragments, rodent hairs

3.3 food grade material

material that will not transfer non-food chemicals into the food and contains no chemicals which would be hazardous to human health

4 Requirements

4.1 General requirements

4.1.1 Cassava maize composite flour shall be produced from cassava flour, grits and/or chips complying with or TZS 466 and/or 465, respectively and maize grains or maize flour complying with TZS 438 or TZS 328-1, respectively.

4.1.2 Cassava maize composite flour shall be

- (a) homogeneous in size and colour;
- (b) practically free of filth and foreign matter;
- (c) free from rancid, objectionable odours or flavours

4.2 Specific requirements

4.2.1 Particle size

Testing for particle size shall be done in accordance with ISO 3588. Not less than 100% shall pass through a 1.5 mm sieve.

4.2.2 Cassava maize composite flour shall conform to the compositional quality requirements shown in Table 1.

Table 1 — Compositional quality requirements of cassava maize composite flour

S/NO	Characteristics	Requirements	Methods of test
1	Crude fibre content, % by mass on dry matter basis, max.	5	ISO 5498
2	Acid insoluble ash, % by mass, max.	0.4	TZS 2044
3	Moisture content, %, by mass, max.	13.5	TZS 961
4	Potential cyanide, mg/kg, max	10	TZS 472

5 Contaminants

Cassava maize composite flour shall comply with the maximum levels of the Codex General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193).

5.1 Pesticide residues

Cassava maize composite flour shall conform to maximum residue limits for pesticide residues established by the Codex Alimentarius Commission for this commodity.

5.2 Mycotoxins

S/NO	Characteristics	Requirements	Methods of test
1	Aflatoxin, Total, ppb, max	10	TZS 799
2	Aflatoxin ,B1,ppb,max	5	

3	Fumonisin, ppm max	2	
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6 Hygiene

Cassava maize composite flour shall be prepared and handled in a hygienic manner in accordance with TZS 109 and shall conform to microbiological limits specified in Table 2.

Table 2 — Microbiological limits for cassava maize composite flour

S/N	Micro-organism(s)	limits	Method of test
1	<i>Escherichia coli</i> , cfu/g,	Absent	TZS 731
2	<i>Salmonella</i> , per 25g,	Absent	TZS 122-1
3	Yeasts and moulds, cfu/g, max.	10 ⁴	TZS 2426-1
4	<i>Staphylococcus aureus</i> cfu/g max	10 ²	TZS 125-3

7 Sampling and test

7.1 Sampling

Sampling of cassava maize composite flour shall be done according to ISO 24333.

7.2 Test

Testing of cassava maize composite flour shall be done according to test methods prescribed in Table 1 and 2 of this standard.

8 Weights and Measures

Cassava maize composite flour shall be packaged in accordance with Weights and Measures requirements of the destination country.

9 Packing, marking and labelling

9.1 Packing

Cassava maize composite flour shall be packed in suitable food grade materials

9.2 Marking and labelling

In addition to the requirements of TZS 538; the following labeling requirements shall apply and shall be legibly and indelibly marked

- a) the common name of the food to be declared on the label shall be 'Cassava maize composite flour';

- b) the net weight
- c) the name and physical address of the manufacturer / distributor;
- d) the country of origin;
- e) batch number;
- f) date of manufacture and best before date
- g) the statement 'Human Food' shall appear on the package
- h) storage conditions as 'store in a cool dry place away from contaminants'
- i) instructions on disposal of used package
- j) The language on the label shall be Swahili and/or English. Another language may be used depending on the designated market.

9.3 The container may also be marked with TBS Quality Mark.

NOTE: The TBS Standards Mark of Quality may be used by the manufacturers only under license from TBS. Particulars of conditions under which the license are granted may be obtained from TBS.