



**DRAFT EAST AFRICAN STANDARD**

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**High quality cassava flour — Specification**

DRAFT FOR COMMENTS ONLY

**EAST AFRICAN COMMUNITY**

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## Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in East Africa. It is envisaged that through harmonized standardization, trade barriers which are encountered when goods and services are exchanged within the Community will be removed.

In order to meet the above objectives, the EAC Partner States have enacted an East African Standardization, Quality Assurance, Metrology and Test Act, 2006 (EAC SQMT Act, 2006) to make provisions for ensuring standardization, quality assurance, metrology and testing of products produced or originating in a third country and traded in the Community in order to facilitate industrial development and trade as well as helping to protect the health and safety of society and the environment in the Community.

East African Standards are formulated in accordance with the procedures established by the East African Standards Committee. The East African Standards Committee is established under the provisions of Article 4 of the EAC SQMT Act, 2006. The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the procedures of the Community.

Article 15(1) of the EAC SQMT Act, 2006 provides that “Within six months of the declaration of an East African Standard, the Partner States shall adopt, without deviation from the approved text of the standard, the East African Standard as a national standard and withdraw any existing national standard with similar scope and purpose”.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

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## 1 Scope

This draft East African Standard specifies requirements, sampling and test methods for high quality cassava flour, which is obtained from the processing of cassava (*Manihot esculenta* Crantz), intended for human consumption, and industrial use

## 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.

EAS 38, *General standard for labeling of prepackaged foods*

EAS 39, *Hygiene in the food and drink manufacturing industry – Code of practice*

EAS 82, *Milled cereal products — Methods of test (General methods)*

EAS 739, *Dried cassava chips — Specification*

EAS 744, *Cassava and cassava products — Determination of total cyanogens — Enzymatic assay method*

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

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

ISO 6579-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection of Salmonella spp.*

ISO 7251, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of presumptive Escherichia coli — Most probable number technique*

ISO 10520, *Native starch — Determination of starch content — Ewers polarimetric method*

ISO 21527-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 2: Colony count technique in products with less than or equal to 0.95* for the water

EAS 738-2010 *Fresh sweet cassava – Specification*

EAS778: 2012 *Fresh bitter cassava– Specification) -Cassava chips*

AOAC 943.02-1943, *PH of flour. Potentiometric method*

AOAC 942.15 *Acidity (Titratable) of Fruit Products*

EAS 900, *Cereals and Pulses - Sampling*

EAS 901, *Cereals and Pulses – Test Methods*

### 3 Terms and definitions

For the purposes of this standard, the following terms and definitions shall apply.

#### 3.1

##### **high quality cassava flour (HQCF)**

is unfermented cassava flour prepared from fresh cassava roots through a process of peeling, chipping or grating followed by dewatering, drying and milling

#### 3.2

##### **food grade material**

material that is free from substances that are hazardous to human health

#### 3.3

##### **clean**

practically free from dirt or staining and or other foreign matter present in the container

#### 3.4

##### **specks**

tiny marks, spots or piece of any other object present in the flour

#### 3.5

##### **extraneous matter**

organic matter of cassava origin other than high quality cassava flour

#### 3.6

##### **foreign matter**

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

### 4 Requirements

#### 4.1 General requirements

4.1.1 HQCF shall be produced from selected fresh cassava roots or from high quality intermediate products such as chips and grits conforming to EAS 738/ EAS 778/EAS 739.

4.1.2 High quality cassava flour shall be:

- a) free from extraneous matter;
- b) free of off flavours and odours;
- c) free from any living insects and foreign matter;
- d) safe and suitable for human consumption;
- e) of colour characteristic of the variety.
- f) give a blue-black colouration when tested with iodine; and
- g) have a pasting temperature less than 75.

## 4.2 Specific requirements

4.2.1 High quality cassava flour shall conform to the compositional quality requirements shown in Table 1

**Table 1 — Compositional Quality requirements**

S/N	Parameter	Requirement	Method of test
1	Total acidity, %, by mass, max.	0.25	AOAC 942.15
2	pH	5.5 – 7.0	AOAC 943.02
3	Acid insoluble ash, %, by mass on dry matter basis, max.	0.35	EAS 82
4	Cyanide content, mg/kg, max.	10	EAS 744
5	Starch content by mass, %, by mass, min.	60	ISO 10520
6	Moisture content, %, by mass, max.	12	EAS 901
7	Crude fiber, %, by mass on dry weight basis, max.	5	ISO 5498
	extraneous matter max limits/ specks/100cm <sup>2</sup>	10	

### 4.2.2 Particle size

Not less than 90 % shall pass through a 0.25 mm sieve for fine flour.

## 5 Contaminants

### 5.1 Pesticide residues

High quality cassava flour shall conform to those maximum residue limits for pesticide residues established by Codex Alimentarius Commission for this commodity.

### 5.2 Other contaminants

High quality cassava flour shall conform to those maximum levels of the Codex General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193).

## 6 Hygiene

High quality cassava flour shall be handled in hygienic manner in accordance with EAS 39 and shall conform to microbiological limits specified in Table 2.

**Table 2 — Microbiological limits for high quality cassava flour**

S/N	Micro-organism(s)	Requirement	Method of test
1	<i>Escherichia coli</i> , CFU/g, max.	Absent	ISO 7251
2	<i>Salmonella spp per</i> , 25g, max.	Absent	ISO 6579-1
3	Yeasts and moulds, CFU/g, max.	10 <sup>4</sup>	ISO 21527-2

## 7 Packaging

High quality cassava flour shall be packaged in food grade material to safeguard the safety, hygienic, nutritional and organoleptic qualities of the product.

## 8 Labelling

**8.1** In addition to the requirements of EAS 38, the following labeling requirements shall apply and shall be legibly and indelibly marked:

- a) common name of the product 'High quality cassava flour';
- b) name and physical address of the manufacturer/ distributor and /or trade name/ brand name;
- c) date of manufacture;
- d) lot identification;
- e) expiry date;
- f) country of origin;
- g) net weight in metric units;
- h) the statement 'Human Food' shall appear on the package;
- i) storage instructions; and
- j) instructions on disposal of used package

**8.2** When labelling non-retail packages, information for non-retail packages shall either be given on the packages or in accompanying documents, except that the name of the product, lot identification and the name and address of the manufacturer or packer shall appear on the packages.

## 9 Method of sampling

Sampling of high quality cassava flour shall be done in accordance with EAS 900.