



DRAFT EAST AFRICAN STANDARD

Brown sugar — Specification

EAST AFRICAN COMMUNITY

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 Africa Standard specifies the requirements, sampling and methods of test for light brown and brown sugar for direct human consumption or further processing.

This standard does not apply to soft brown sugar

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 - labelling of pre-packaged foods- General requirements -EAS 39 Code of practice for hygiene in the food and drink manufacturing industry

ICUMSA Method GS 1 -1(2022) Polarimetric sucrose content of raw sugar by VIS polarimetry - official (reference)

ICUMSA Method GS 2-6 (2007), Determination of Reducing Sugars in White Sugar and Plantation White Sugar by the Modified Ofner Titrimetric Method

ICUMSA Method GS 1-13(1994) Determination of Conductivity Ash in Raw Sugar, Brown Sugar, Juice, Syrup and Molasses

ICUMSA Method GS 2-15 (2007) Determination of Sugar Moisture by Loss on Drying

ICUMSA Method GS 1 -7 (2024) colour in solution of sugar and syrups – official

ICUMSA GS 2-35 (2024) Determination of Sulphite in Refined Sugar Products excepting Brown Sugars by an Enzymatic Method

ICUMSA Method GS 2-19 (2007) Determination of Insoluble Matter in White Sugar by Membrane Filtration

ISO 16649-2: Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of beta-glucuronidase-positive *Escherichia coli*

-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 water activity less than or equal to 0,95

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

ISO 4833-1, *Microbiology food chain — Horizontal method for enumeration for microorganism — Part 1, colony count at 30 degrees C by the pour plate technique*

3 Terms and definitions

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

3.1

brown sugar

the sugar derived from sugar cane or sugar beet by partial purification of raw sugar followed by subsequent drying and intended for direct human consumption.

3.2

ICUMSA unit

An international unit developed by International Commission for Universal Methods of Sugar Analysis (ICUMSA) for expressing the purity of sugar and is directly related to the colour of sugar.

3.3

polarisation

An estimate of the sucrose content of sugar expressed as degrees of polarization

3.4

lot

collection of packages of the same size, type and style which have been manufactured and packaged under essentially the same conditions

4 Requirements

4.1 General requirements

Brown sugars shall be:

- a) brownish in colour
- b) Free flowing crystals;
- c) practically free from dirt, foreign and extraneous matter; and
- d) Free from fermented, musty or undesirable odours.

4.2 Specific requirements

Brown sugar shall conform to the specific requirements provided in Table 1.

Table 1 — Specific requirements for Brown sugar

S N	Characteristic	Requirement/limits		Methods of test
		Light brown	brown	
i.				
ii.	Polarisation, °Z, min.	99.2	99.0	ICUMSA Method GS 1 - 1(2022)
	Invert sugar content, % m/m, max.	0.2		ICUMSA Method GS 2-6 (2007),
iii.	Conductivity ashes, % m/m,	0.3		ICUMSA Method GS 1-13(

	max.			1994)
iv.	Moisture content (loss on drying for 3 h at 105 °C ± 2 °C), max.	0.15	0.2	ICUMSA Method GS 2-15 (2007)
v.	Colour, in ICUMSA units, max	700	1300	ICUMSA Method GS 1 -7 (2024)
vi	Sulphur dioxide, mg/kg, max.	20		ICUMSA GS 2-35 (2024)
Vii	Water insoluble matter, mg/kg, max.	250		ICUMSA Method GS 2-19 (2007)

5 Food additives

Only the food additives permitted in CXS 192 shall be used

6 Contaminants

6.1 Pesticide residues

Brown sugar shall conform to with those maximum pesticide residue limits established by the Codex Alimentarius Commission.

6.2 Heavy metals

Brown sugar shall conform to with those maximum heavy metal contaminant limits established by the Codex Alimentarius Commission.

7 Hygiene

Brown sugar shall be prepared and handled in accordance with EAS 39 and shall comply with microbiological limits specified in Table 2.

Table 2 — Microbiological limits for brown sugar

S/N	Microbiological parameter	Limits	Method of test
i.	Total Plate Count (mesophylic), cfu/g , max	10 ³	ISO 4833-1
ii.	Yeast and moulds, cfu/g , max	50	ISO 21527-2
iii.	Escherichia coli, cfu,/g	Absent	ISO 16649-2
iv.	Salmonella, spp in 25 g	Absent	ISO 6579 - 1

8 Packaging

8.1 Brown sugars shall be packaged in food grade materials that ensure product safety and integrity.

NOTE : Packaging materials may be required to meet different regulations in the different destination countries.

8.2 The package fill shall conform to the requirements of the legal metrology of the Partner States.

9 Labelling

In the addition to the requirements specified in EAS 38, each package of the Brown sugar shall be legibly and indelibly labelled with the following

- a) The name of the product as light brown sugar or brown sugar
- b) The net contents shall be declared by weight in the metric units ('Système International');
- c) The name, address and physical location of the manufacturer and/or the packer, distributor, importer, exporter or vendor of the product shall be declared; and
- d) The country of origin of the product shall be declared.
- e) Batch or Lot number
- f) Date of manufacture, in the form 'month and year'
- g) Expiry date in the form 'month and year'

10 Sampling

Brown sugar shall be sampled in accordance with CXG 50

Public Review for Comments