

Icing sugar — Specification

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Sony Sugar Company Ltd.  
West Kenya Sugar Company Ltd.  
Kenafric Industries Ltd.  
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Cadbury (K) Ltd.  
Government Chemist's Department  
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In order to keep abreast of progress in industry, Kenya Standards shall be regularly reviewed. Suggestions for improvements to published standards addressed to the Managing Director, Kenya Bureau of Standards, are welcome.

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Icing sugar — Specification

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This Kenya Standard has been prepared by the Technical Committee on Sugar and Sugar Products under the guidance of SPC and it is in accordance with the procedures of the Kenya Bureau of Standards.

The standard covers the chemical, microbiological and labelling requirements for icing sugar amongst others.

During the preparation of this standard, reference was made to the following documents:

CAC/VOL III-Ed 1 - Codex Standard Stan 4, Codex standard for white sugar.

US 29 : 1993, Specification for icing sugar.

KS 38 2007, Mill white sugar.

Acknowledgement is hereby made for the assistance derived from these sources.

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## Icing sugar — Specification

### 1 Scope

This Kenya Standard specifies the requirements and methods of test for icing sugar intended for human consumption.

### 2 Field of application

This standard covers icing sugar as powdered sugar or sugar cubes.

### 3 Definitions

For the purposes of this standard, the following definitions shall apply:

#### 3.1 icing sugar

Sugar manufactured by pulverizing refined sugar or vaccum pan (plantation white) sugar with or without edible starch.

#### 3.2 ICUMSA is the International Commission for Uniform Methods of Sugar Analysis

### 4 Requirements

#### 4.1 General requirements

Icing sugar and sugar cubes shall:

- a) have a characteristic flavour;
- b) be free from any foreign flavour and odour;
- c) be free from traces of pests, rodents and their derivatives;
- d) be free from any extraneous matter;
- e) be free from any foreign matter.

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### 4.2 Compositional requirements

The composition of icing sugar shall be in accordance with the requirements given in Table 1, when tested in accordance with the methods of test stipulated in KS 05-58, Sampling methods and methods of chemical analysis for sugar.

Table 1 — Compositional requirements for icing sugar

Sl no	Characteristic parameters	Icing sugar	Sugar cubes	Test method
i)	Polarization °S, min.	99.7	99.7	ICUMSA Method GS 2/3-1
ii)	Moisture % m/m, max.	0.10	0.20	ICUMSA Method GS 2/3/9-15
iii)	Conductivity ash, % m/m, max.	0.04	0.04	ICUMSA Method GS 2/3-17
iv)	Invert sugar, % m/m, max.	0.04	0.04	ICUMSA Method GS 2/3/9-5
v)	Sulphur dioxide, ppm, max.	15	15	
vi)	Colour in ICUMSA units, max.	60	60	ICUMSA Method GS 2/3-10
vii)	Water-insoluble matter, ppm, max.	45	45	ICUMSA Method GS 2/3-19

### 5 Limits for heavy metal contaminants

Icing sugar shall also comply with the limits for heavy metal contaminants stipulated in Table 2.

Table 2 — Limits for heavy metal contaminants in icing sugar and sugar cubes

Sl no	Contaminants in ppm, max.	Limits	Test method
i)	Arsenic (As)	1	ICUMSA Method GS 2/3/9-25 ICUMSA Method GS 2/3-23
ii)	Lead (Pb)	0.5	ICUMSA GS 2/3/29
iii)	Copper (Cu)	2	ICUMSA GS 2/1/3-27 ICUMSA GS 2/3-23

### 7 Hygiene

Icing sugar shall be prepared in premises built and maintained under hygienic manner in accordance with KS 05-1500, Cap. 242, cap 254 and shall comply with the microbiological limits stipulated in Table 3 when tested in accordance with the methods specified therein.

Table 3 — Microbiological limits for icing sugar, powdered sugar and sugar cubes

Sl no	Characteristic	Limits	Test methods
i)	Total plate count (mesophilic), max. per 10 g	10 <sup>2</sup>	EAS 217-2
ii)	Yeast count, max., per 10 g	10	EAS 217-8
iii)	Moulds count, max, per 10 g	10	
iv)	Total thermophilic spore count , max., per 10 g	NIL	ICUMSA GS2/3-49
v)	Thermophilic flat sour spores, max. per 10 g	NIL	ICUMSA GS 2/3-49
vi)	Thermophilic anaerobes (producing gas other than H <sub>2</sub> S), max., positive tubes	2(40%)	ICUMSA GS 2/3-49
vii)	Thermophilic anaerobes (producing H <sub>2</sub> S), max., positive tubes	2(40 %)	ICUMSA GS 2/3-49
viii)	Coliforms cfu/g	NIL	EAS 217-1
ix)	<i>Salmonella</i> /30g	Shall be absent	EAS217-6
x)	<i>Staphylococcus aureus</i> and coagulase positive staph. <i>Aureus</i> cfu/g	Nil	EAS 217-5

## 8. Additives

Food additives usage shall comply with Codex Stan 192.

## 9. Weights and measures

The weight and fill of the Icing sugar shall comply with the laws and regulations of weights and measures.

## 10. Packaging

The Icing sugar shall be packaged in food grade material that secures the integrity and the safety of the

## 11. Labelling

In particular to the labelling requirements in KS EAS 38, the following specific declarations shall be legibly and indelibly marked on each label:

- (i) name of product as "Icing Sugar and Sugar Cubes";
- (ii) name, location and physical address of the manufacturer;
- (iii) registered trade mark;
- (iv) net weight in gm or kg;
- (v) date of manufacture;

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- (vi) expiry date;
- (vii) country of origin;
- (vii) batch or code number;
- (viii) storage instructions.

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