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Jams, Jellies and Marmalades-Specification

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Pest control products board

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Ministry of Health- Food Safety Unit

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DKS 139: 2018 ICS 67.080

Jams, Jellies and Marmalades - Specification

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FOREWORD

This Kenya Standard was developed by the Technical Committee on Processed Fruits and Vegetables under the guidance of the Standards Projects Committee, and it is in accordance with the procedures of the Kenya Bureau of Standards.

The standard sets out minimum limits with respect to product composition, hygiene, microbiological, contaminants and labelling requirements of jams, jellies and marmalades. A series of analytical test methods are also included.

In the preparation of this standard useful information was derived from members of the technical committee, Codex standard for canned fruits (CODEX STAN 319-2015) and local manufacturers

Acknowledgement is hereby made for theassistancereceived from his source.

This standardcancels and replaces KS 139: 1993

2 2

KENYA STANDARD

JAMS, JELLIES AND MARMALADES- SPECIFICATION

1. SCOPE

- 1.1 This standard prescribes the requirements and methods of sampling and test for jams, jellies and marmalades, as defined in Section 3 below, and offered for direct consumption, including for catering purposes or for repacking if required. This Standard does not apply to:
- (a) products when indicated as being intended for further processing such as those intended for use in the manufacture of fine bakery wares, pastries or biscuits;
- (b) Products which are clearly intended or labelled as intended for special dietary uses;
- (c) reduced sugar products or those with a very low sugar content;
- (d) Products where the foodstuffs with sweetening properties have been replaced wholly or partially by food additive sweeteners.
- **1.2** The terms, "preserve" or "conserve" are sometimes used to represent products covered by this Standard. The use of the terms "preserve" and "conserve" are thereby required to comply with the requirements for jam and/or extra jam as set out in this Standard.

2. NORMATIVE REFERENCES

- KS EAS 38, labeling of prepackaged foods
- KS EAS 39, Code of practice for hygiene in the food and drink manufacturing industry
- KS EAS 12, Drinking (Potable) water- Specification
- KS EAS 803: 2013. Nutrition labeling Requirements
- KS EAS 804:2013 Claims on foods Requirements
- KS EAS 805: 2013 Use of Nutrition and health claims
- Codex Stan 195, General Standard for Food Additives
- Codex Stan 193, General Standard for contaminants
- KS 38, Plantation (mill) white sugar Specification
- KS EAS 36, honey- Specification
- KS EAS 5, Refined white sugar Specification
- KS EAS 217-2, Methods for the microbiological examination of foods Part 2: General Guidance for the Enumeration of Micro-Organisms-Colony Count Technique at 30°C
- KS EAS 217-8, Methods for microbiological examination of foods -Part 8: Enumeration of yeasts and moulds
- KS ISO 7251, Microbiology of food and animal feeding stuffs Horizontal method for the detection and enumeration of presumptive Escherichia coli - Most probable number technique
- KS ISO 2173, Fruit and vegetable products Determination of soluble solids Refractometric method
- KS ISO 17239; Fruits, vegetables and derived products Determination of arsenic content Method using hydridegeneration atomic absorption spectrometry
- KS ISO 7952; Fruits, vegetables and derived products Determination of copper content Method using flame atomic absorption spectrometry
- KS ISO 5517; Fruits, vegetables and derived products Determination of iron content 1,10- Phenanthroline photometric method
- KS ISO 9526; Fruits, vegetables and derived products Determination of iron content by flame atomic absorption spectrometry
- KS ISO 6633; Fruits, vegetables and derived products Determination of lead content Flameless atomic absorption spectrometric method
- KS ISO 6637; Fruits, vegetables and derived products Determination of mercury content Flameless atomic absorption method
- KS ISO2447; Fruits, vegetables and derived products Determination of tin content
- KS ISO 6636-2; Fruits, vegetables and derived products Determination of zinc content Atomic absorption spectrometric method

3. DESCRIPTION

3.1 Product definitions

- **3.1.1 Jam** is the product brought to a suitable consistency, made from the whole fruit, pieces of fruit, the unconcentrated and/or concentrated fruit pulp or fruit puree, of one or more kinds of fruit, which is mixed with foodstuffs with sweetening properties as defined in Section 3.2, with or without the addition of water
- **3.1.2 Citrus Marmalade** is the product obtained from a single or a mixture of citrus fruits and brought to a suitable consistency. It may be made from one or more of the following ingredients: whole fruit or fruit pieces, which may have all or part of the peel removed, fruit pulp, puree, juice, aqueous extracts and peel and is mixed with foodstuffs with sweetening properties as defined in Section 2.2, with or without the addition of water.
- **3.1.3 Non Citrus Marmalade** is the product prepared by cooking fruit, whole, in pieces, or crushed adding foodstuffs with sweetening properties as defined in Section 2.3 to obtain a semi-liquid or thick liquid.
- **3.1.4 Jelly Marmalade**is the product described under citrus marmalade from which all the insoluble solids have been removed but which may or may not contain a small proportion of thinly cut peel.
- **3.1.5** Sugarless Jams, Jellies and Marmalades are the products prepared as 3.1.1 to 3.1.4,but which does not contain any added nutritive sweetener (sugar). It may contain permitted non-nutritivesweeteners and permitted preservatives.

3.2 Other Definitions

- **3.4** Fruit Means all of the recognised fruits and vegetables that are used in making jams, including but not limited to those fruits mentioned in this Standard, either fresh, frozen, canned, concentrated, dried, or otherwise processed and/or preserved which shall be sound, wholesome and clean and of suitable ripeness but free from deterioration and containing all its essential characteristics except that it has been trimmed, sorted and otherwise treated to remove any blemishes, bruises, toppings, tailings, cores, pits (stones) and may or may not be peeled.
- **3.5 Fruit Pulp** is the edible part of the whole fruit, if appropriate less the peel, skin, seeds, pips, etc., which may have been sliced or crushed but which has not been reduced to a puree
- **3.5.1** Fruit Puree is the edible part of the whole fruit, if appropriate, less the peel, skin, seeds pips and similar which has been reduced to a puree by sieving or other processes.
- 3.5.2 Aqueous extracts is the aqueous extract of fruits which subject to losses necessarily occurring during proper manufacture, contains all the water-soluble constituents of the fruit concerned.
- 3.5.3 Fruit Juices and concentrates Products as defined in the General Standard for Fruit Juices and Nectars (KS 2640)).
- 3.5.4 Citrusfruit— Fruit of the Citrus L. family

3.5.5 Foodstuffs with sweetening properties:

- (a) All sugars as defined in the Standard for Sugars (complying with the relevant Kenya standards for sugars);
- (b) Sugars extracted from fruit (fruit sugars);
- (c) Fructose syrup;
- (d) Brown sugar;
- (e) Honey as defined in the Standard for Honey (KS EAS 36).

4. ESSENTIAL COMPOSITION AND QUALITY FACTORS

4.1 Composition

4.1.1Basic Ingredients

(a) Fruit ingredient, as defined in Section 3.2, in quantities laid down in Sections 4.1.2 (a) – (d) below.

In the case of jellies the quantities where appropriate shall be calculated after deduction of the weight of water used in preparing the

aqueous extracts

(b) Foodstuffs with sweetening properties as defined in Section 3.2.

4.1.2Fruit Content

The following percentage fruit content for jams and jellies specified at 3.1.2 (a) or 3.1.2 (b) below shall apply and labelled in accordance with Section 8.2:

- (a) The products, as defined in Section 2.1, shall be produced such that the quantity of fruit ingredient used as a percentage of finished products shall be not less than 45% in general, with the exception of the following fruits:
- 35% for blackcurrants, mangoes, quinces, rambutan, redcurrants, rosehips, roselles, rowanberries and sea-buckthorns;
- 30% for soursop and cranberry;
- 25% for banana, cempedak, ginger, guava, jackfruit and sappota;
- 23% for cashew apples;
- 20% for durian;
- 10% for tamarind;
- 8% for passion fruit and other strong flavoured or high acidity fruits
- b) Fruits when used at higher percentages could render the product unpalatable in accordance with consumers preferences in the country
 of retail sale, however when made with high fruit content or low fruit content; It shall not contain a fruit content less than the amounts
 specified in the table below;

Type of fruit Fruit content % m/m (minimum)	Type of fruit Fruit content % m/m (minimum)	
	extra /high fruit	low fruit
Guava, Wood apple Mango,	23	16
Tomato	40	28
Cashew apple	23	16
Strawberry/ raspberry	40	28
Passion fruit		
Black current	40	25
Mixed fruit	45	33
Other fruit	45	33

c) When fruits are mixed together, the minimum content must be reduced in proportion to the percentages used.

Or

(d) The products, as defined in Section 2.1, shall be produced such that the quantity of fruit ingredient used as a percentage of finished products shall be not less than 35% in general, with the exception of the following fruits:

25% for blackcurrants, mangoes, quinces, rambutan, redcurrants, rosehips, roselles, rowanberries and sea-buckthorns;

20% for soursop and cranberry;

16% for cashew apples;

15% for banana, cempedak, guava, jackfruit and sappota;

11% - 15% for ginger;

10% for durian;

6% for passion fruit, tamarind or other strong flavoured or high acidity fruits

When fruits are mixed together, the minimum content must be reduced in proportion to the percentages used. In the case of Labrusca grape jam, grape juice and grape juice concentrate when added as optional ingredients; this may constitute a part of the required fruit content.

(e) Citrus Marmalade

The product, as defined in Section 3.1, shall be produced such that the quantity of citrus fruit ingredients used in the manufacturing of 1000 g of finished product must not be less than 200 g of which at least 75 g must be obtained from the endocarp. In addition the term "jelly marmalade" as defined in Section 3.1 may be used when the product contains no insoluble matter but may contain small quantities of thinly cut peel.

(f) Non Citrus Marmalade

The product, as defined in Section 3.1, shall be produced such that the quantity of fruit ingredient used as a percentage of the finishedproduct shall not be less than 30% in general, with the exception of the following fruits:

11% for ginger.

4.1.3Other Permitted Ingredients

Any appropriate food ingredient of plant origin may be used in the products covered by this Standard. This includes fruit, herbs, spices, nuts, alcoholic drinks and essential oils and vegetable edible oils and fats (used as antifoaming agents), as long as they do not mask poor quality and mislead the consumer. For example, red fruit juice and red beetroot juice may only be added to jams as defined in points 4.1.2 (a) and (b) made from gooseberries, plums, raspberries, redcurrants, rhubarb, rosehips, roselle or strawberries.

4.1.3.1 Nutrients

For the purpose of product fortification, essential nutrients such as vitamins and minerals may be added to products. Such additions shall comply with national legislation established for this purpose.

NOTE: any optional ingredients added are subject to ingredient labelling requirements (see Clause 8)

4.2Soluble Solids

The soluble solids content for the finished products defined in Sections 4.1.2 (a) – (c) shall in all cases be between 60 to 65% or greater (uncorrected for insoluble solids). In the case of the finished product defined in Section 4.1.2 (d), the soluble solids content shall be 40 - 65% or less(uncorrected for insoluble solids), When tested according AOAC 932.14/ KS ISO 2173

4.3 Quality Criteria

4.3.1 General Requirements

The end product shall be of an appropriate gelled consistency, having normal colour and flavour appropriate to the type or kind of fruit ingredient used in the preparation of the mixture, while taking into account any flavour imparted by optional ingredients or any permitted colouring agents used. It shall be free from defective materials normally associated with fruits. Jelly and extra jelly shall be reasonably clear or transparent.

3.2 Defects and Allowances for Jams

The products covered by this Standard shall be largely free of defects such as plant material skins (if peeled), stones and pieces of stones and mineral matters. In the case of berry fruits, Dragon fruit and passion fruit, seeds shall be considered a natural fruit component and not a defect unless the product is presented as "seedless".

4.3.3 Classification of "defectives"

A container that fails to meet one or more of the applicable quality requirements as set out in Section 4.3.1 should be considered as a "defective".

4.1.4 Lot Acceptance

A lot should be considered as meeting the applicable quality requirements referred to in Section 4.3.1 when the number of "defectives" as defined in Section 4.4 does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5. See Annex

FOOD ADDITIVES

Only those food additive classes listed below are technologically justified and may be used in products covered by this Standard. Within each additive class only those food additives listed below, or referred to, may be used and only for the functions, and within limits, specified.

5.1 Acidity regulators, antifoaming agents, firming agents, preservatives and thickeners used in accordance with Table 3 of the General Standard for Food Additives (CXS 192-1995) are acceptable for use in foods conforming to this Standard

5.2 **ACIDITY REGULATORS**

INS No.	Name of the Food Additive	Maximum Level
334; 335(i), (ii); 336(i), (ii); 337	Tartrates	3,000 mg/kg

6.3 ANTIFOAMING AGENTS

INS No.	Name of the Food Additive	Maximum Level
900a	Polydimethylsiloxane	10 mg/kg

6.4 **COLOURS**

INS No.	Name of the Food Additive	Maximum Level
100(i)	Curcumin	500 mg/kg
101(i), (ii)	Riboflavins	200 mg/kg
104	Quinoline Yellow	100 mg/kg
110	Sunset Yellow FCF	300 mg/kg
120	Carmines	200 mg/kg
124	Ponceau 4R (Cochineal Red A)	100 mg/kg
129	Allura Red AC	100 mg/kg
133	Brilliant Blue FCF	100 mg/kg
140	Chlorophylls	GMP
141(i), (ii)	Chlorophylls and Chlorophyllins Copper Complexes	200 mg/kg
143	Fast Green FCF	400 mg/kg
150a	Caramel I – Plain Caramel	GMP
150b	Caramel II Sulfite Caramel	80,000 mg/kg
150c	Caramel III Ammonia Caramel	80,000 mg/kg
150d	Caramel IV Sulfite Ammonia Caramel	1,500 mg/kg
160a(i)	Carotenes, beta, synthetic	500 mg/kg singly or in combination
160a(iii)	Carotenes, beta, Blakesleatrispora	
160e	Carotenal, beta apo-8-	
160f	Carotenoic acid, ethyl ester, beta apo-8-	
160a(ii)	Carotenes, beta, vegetable	1,000 mg/kg
160d(i) 160d(iii)	Lycopenes	100 mg/kg
161b(i)	Lutein from Tageteserecta	100 mg/kg
162	Beet Red	GMP

163(ii)	Grape Skin Extract	500 mg/kg
172(i)- (iii)	Iron Oxides	200 mg/kg

PRESERVATIVES 6.5

INS No.	Name of the Food Additive	Maximum Level

200-203	Sorbates	1,000 mg/kg
210-213	Benzoates	1,000 mg/kg
220-225, 227, 228, 539	Sulfites	50 mg/kg as residual SO2 in the end product, except when made with sulfited fruit when a maximum level of 100 mg/kg is permitted in the end product.

5.6Flavourings

The following flavourings are acceptable for use in foods conforming to this Standard when used in accordance with good manufacturing practices and in compliance with the Codex Guidelines for the Use of Flavourings (CXG 66-2008): natural flavourings that are extracted from the named fruits in the respective product; natural mintflavouring; natural cinnamon flavouring; vanillin, vanilla or vanilla extracts.

6.HYGIENE

- **6.1** It is recommended that the products covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the *General Principles of Food Hygiene* (KS EAS 39) and other relevant Kenya standards such as codes of hygienic practice and codes of practice
- **6.2** The products shall conform to microbiological criteria in Table 6 and those provided in KS 2455; Food Safety -general standard and other microorganisms of food safety concern

Table 2 - Microbiological limits for Jams, Jellies and Marmalades

SL No.	Microorganism	<u>Limit</u>	Method of Test
	Total plate count, cfu/g, max	50	KS ISO 4833
i.	Escherichia coli, (cfu/g), max	Absent	KS ISO 7251
ii.	Staphylococcus aureas, (cfu/25g)	Absent	KS ISO 6888-1
iii.	Shigella, cfu/25g	Absent	KS ISO4833
iv.	Salmonella. Cfu/25g	Absent	KS ISO 6579
٧.	Colostridiumbotulinum, cfu/25g	Absent	KS ISO 4833
vi.	Vibrio cholera, cfu/25g	Absent	KS ISO 4833
vii.	Moulds (cfu/25g), max	Absent	KS ISO 7954

7.CONTAMINANTS

The products covered by this standard shall comply with the maximum levels of the General standard for contaminants and toxins in food and feed (KS Codex Stan 193)

7.1 Pesticide residues

The products covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

7.2 Heavy Metal Contaminants

The products covered by the provisions of this standard shall conform to those maximum limits for Heavy metals contaminants established by the Codex Alimentarius Commission for these products in table 3 below

TABLE 3- maximum limits for Heavy metals contaminantsfor Jams, Jellies and Marmalades

CONTAMINANTS	MAXIMUM LEVEL	Method of Test
Arsenic(As)	0.01 mg/kg	KS ISO 17239

Lead(Pb)	0.1 mg/kg	KS ISO 6733
Copper (Cu)	5.0 mg/kg	KS ISO 7952
Zinc (Zn)	5.0 mg/kg	KS ISO 6636
Tin(Sn)	250 mg/kg	KS ISO 2447
Mercury(Hg)	0.001 mg/kg	KS ISO 6637
Cadmium(cd)	0.003 mg/kg	KS ISO 6732

Other contaminants

The products covered by the provisions of this standard shall conform to those maximum levels for contaminants established by the Codex Alimentarius Commission for these products

6.WEIGHTS AND MEASURES

6.1Fill of container

7.3

6.1.1Minimum Fill

The container should be well filled with the product which should occupy not less than 90% (minus any necessary head space according to good manufacturing practices) of the water capacity of the container is the volume of distilled water at 20oC which the sealed container will hold when completely filled, when tested in accordance toKS CAC/RM 46-1972 (Codex General Method for processed fruits and vegetables) and KS ISO 90.1:1999 for the fill of containers in metal containers

7.1.2Classification of "Defectives"

A container that fails to meet the requirement for minimum fill of Section 7.1.1 should be considered as a "defective".

8.LABELING

8.1The products covered by the provisions of this Standard shall be labelled in accordance with the General Standard for the Labelling of Prepackaged Foods (KS EAS 38). In addition, the following specific provisions apply:

8.2Name of the Product

8.2.1The names of the products shall be:

In the case of Section 4.1.2 (a):

- Jam (or preserve or conserve, if appropriate);
- Extra Jam (preserve or conserve, if appropriate);
- High Fruit Jam (preserve or conserve, if appropriate);
- Jellv:
- Extra Jelly.

In the case of Section 4.1.2 (b):

- Jam (or preserveor conserveor fruit spread);
- Jelly (or fruit spread).
- In the case of Section 4.1.2 (e):
- Marmalade or Jelly Marmalade.
- In the case of Section 4.1.2 (f):
- "X" marmalade ("X" is a non-citrus fruit).
- In the case of Section 3.1.5:
- The product shall be labelled as "Diet (X) fruit jam" or "Diabetic (X) fruit jam", where X is the name of the fruit
- In the case of Mixed fruit jam/marmalade/jelly:
- The product shall be labelled by completing at (X) the names of the fruits contained in the product in order of decreasing proportions
- In the case of fruit jam/ marmalade/jellymade with high fruit content or low fruit content as specified in table 1 4.1.2 (d):
- The product shall be abelled as "Extra (X) jam" or "High fruit (X) jam" or "Low fruit (X) jam" as the case may be.
- In the case of Flavouredjam/marmalade/jelly: (Y) flavoured (X)jam/marmalade/jelly:(where "Y" denotes the type of flavouring ingredient)
 shall be applied to jams which have been artificially flavoured to impart to the jam the distinctive flavour of the added flavouring ingredient.
- In the case of low sugar or reduced sugar product containing soluble solids less than 65.0 % m/m:
- The product shall be labelled as "Low sugar (X) fruit jam" or "Reduced sugar (X) fruit jam". It may contain permitted preservatives. The sugar content shall be declared on the label.
- A jelly made from sugar, permitted gelling agent and permitted flavouring and colouring matter shall be clearly marked as "Synthetic" or "Artificial" jelly.

The name used should be in accordance with the legislation of the country of retail sale.

- **8.2.2**The name of the product shall provide an indication of the fruit(s) used in descending order of weight of the raw material used. In the case of products made with three of more different fruits the alternative phrase "mixed fruit" or similar wording or by the number of fruits may be used
- **8.2.3**The name of the product may provide an indication of the variety of fruit e.g. "Victoria" plum and /or may include an adjective describing the character e.g. "seedless", "shredless".

8.2.4The name of the product shall be accompanied by the term "prepared with added alcohol" in accordance with the legislation of the country of retail sale

8.3Fruit Quantity and Sugar Declaration

Depending on the legislation or requirements of the country of retail sale, the products covered by this Standard may also give an indication of the fruit ingredient content in the form of "prepared with X g of fruit per 100 g" and the total sugar content with the phrase "total sugar content X g per 100 g". If an indication of fruit content is given this should relate to the quantity and type of fruit ingredient used in the product as sold with a deduction for the weight of any water used in preparing the aqueous extracts

8.4Labelling of Non-Retail Containers

Information for non-retail containers shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the manufacturer, packer, distributor or importer, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer, distributor or importer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents

- **8.5Nutrition declaration** Any added essential nutrients declaration should be labelled in accordance with the Guidelines on Nutrition Labelling (KS EAS 803), General Guidelines on Claims (KS EAS 804) and the KS EAS 805; Guidelines for Use of Nutrition and Health Claims
- 8.6 List of Ingredients a complete list of ingredients including added syrup shall be declared on the label in descending order of proportion.
- **8.7 Net Contents** the net contents shall be declared by volume in metric units (*SystemeInternationale*).
- 8.8 Name or business name and Address of the manufacturer, packager, distributor, importer, exporter or vendor of the product, whichever may apply, shall be declared.
- 8.9 Lot Identification each container shall be embossed or otherwise permanently marked in code or in clear identity the producing factory and the lot.
- 8.10Place/country of origin
- 8. 11 Date of expiry

9.METHODS OF ANALYSIS AND SAMPLING

The products covered by the provisions of this standard shall be tested using appropriate standard methods declared in this standard. Other test may be performed as per the methods given in the latest AOAC/ Codex/ ISO and other internationally recognized methods.

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (referee purposes sample size), enforcement or need for better lot estimate)

SAMPLING PLAN 1 (Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)

Lot Size (N)	Sample Size (n)	Acceptance Number (c)
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240 000	72	8

NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)

Lot Size (N)	Sample Size (n)	Acceptance Number (c)
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8

NET WEIGHT GREATER THAN 4.5 KG (10 LB)

Lot Size (N)	Sample Size (n)	Acceptance Number (c)
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

SAMPLING PLAN 2 (Inspection Level II, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)

Lot Size (N)	Sample Size (n)	Acceptance Number (c)
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8

NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)

,					
Size (N)	Sample Size (n)	Acceptance Number (c)			
2,400 or less	13	2			
2,401 - 15,000	21	3			
15,001 - 24,000	29	4			
24,001 - 42,000	38	5			
42,001 - 72,000	48	6			
72,001 - 120,000	60	7			
more than 120,000	72	8			

	NET WEIGHT GREATER THAN 4.5 KG (10 LB	
Lot Size (N)	Sample Size (n)	Acceptance Number (c)
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8



OBLIC PERILIPATION OF AREA

OBIN PRAIN

KENYABUREAUOFSTANDARDS(KEBS)

KEBSCERTIFICATIONMARKS

1. **ProductCertificationMarks**



KEBSStandardizationMark(S-Mark)isissued foruseonproductsthatcomplywiththeminimum quality requirements prescribed in Kenya standards.Itusesstandardsasabenchmarkfor compliance and aims at givingmanufacturersimprovedmarketaccessand

givingconsumersanassuranceofqualityforthe productsbearingthemark.

KEBSismandatedtoprovideStandardization, MetrologyandConformityAssessmentServices through:

- Promotionofstandardizationincommerceandindustry
- Provisionoftestingandcalibrationfacilities
- Controloftheuseofstandardizationmarks
- Undertakingeducationalworkinstandardization
- Facilitation of the implementation and practical application of standards
- MaintenanceanddisseminationoftheInternationalSystemof Units(SI)ofmeasurements

StandardizationMark

SYMBOLFORPRODUCTQUALITY



DiamondMarkofQuality SYMBOLFORPRODUCTQUALITYEXCELLENCE ImportStandardizationMark SYMBOLFORPRODUCTQUALITY

KEBSoffersthefollowingservices:

- Standardsdevelopmentandharmonization
- Testingservices
- Measurementservices(Calibration)
- Enforcementofstandards
- Productinspectionservices
- Education and Training in Standardization, Metrology and Conformity Assessment
- ProductandManagementSystemsCertificationServices

2. **SystemsCertificationMarks**







OCCUPATIONALHEALTHANDSAFETY



ISO14001RFGISTFRFDFIRM



ISO22000REGISTEREDFIRM

ForfurtherInformationpleasecontact

TheManagingDirector KenyaBureauofStandards PopoRoad,OffMombasaRoad P.O.Box54974-00200 NAIROBI, KENYA

INFORMATIONONSTANDARDS

Standardsaredocumentsthatprovideacommonreferencepointfortheassessmentofthequalityofgoodsandservices. Standardsfacilitatetran parencyinthe exchangeofproductsandenhancemarketaccessofKenyanproductsintolocal, regionalandinternationalmarkets.

InformationonstandardsandrelateddocumentsisavailableattheKEBSstandardsinformationcentre.

KEBShousestheWTO-TBTNationalEnquiryPoint(NEP)whichdisseminates notificationlikelytoaffectinternationaltradetotheindustry.

KEBSalsoprovidestechnicaladviceoninstallationandimprovementofquality goods and services to the industry so a stofacilitate efficient implementation of the storage of the storagestandards. Some of the advantages of standards include: enhancement of quality assurance, safety and environmental protection measures, minimization of wastage, reduction of costs and unecessary varieties and promotion of interchangeabilityandincreasedproductivityinindustry.

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