Coffee premix ― Specification

© KEBS 2020 First Edition, 2020

**TECHNICAL COMMITTEE REPRESENTATION**

The following organizations were represented on the Technical Committee:

AFA- Coffee Directorate

Kenya Industrial Research and Development Institute (KIRDI)

KALRO- Coffee Research Institute

University of Nairobi

Dedan Kimathi University of Technology

Consumer Information Network

Government Chemist's Department

Dorman coffee Ltd.

Kenya Plant Health Inspectorate Service

Nestle Kenya Ltd.

Kenya Bureau of Standards — Secretariat

**REVISION OF KENYA STANDARDS**

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.

*© Kenya Bureau of Standards, 2020*

*Copyright. Users are reminded that by virtue of Section 25 of the Copyright Act, Cap. 130 of 2001 of the Laws of Kenya, copyright subsists in all Kenya Standards and except as provided under Section 25 of this Act, no Kenya Standard produced by Kenya Bureau of Standards may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from the Managing Director.*

**Coffee premix ― Specification**

**KENYA BUREAU OF STANDARDS (KEBS)**

**Head Office:** P.O. Box 54974, Nairobi-00200, Tel.: (+254 020) 605490, 602350, Fax: (+254 020) 604031

E-Mail: info@kebs.org, Web:http://www.kebs.org

**Coast Region Lake Region Rift Valley Region**

P.O. Box 99376, Mombasa-80100 P.O. Box 2949, Kisumu-40100 P.O. Box 2138, Nakuru-20100

Tel.: (+254 041) 229563, 230939/40 Tel.: (+254 057) 23549, 22396 Tel.: (+254 051) 210553, 210555

Fax: (+254 041) 229448 Fax: (+254 057) 21814

**Foreword**

This Kenya standard has been developed by the Technical Committee on Coffee and coffee products under the guidance of the Standards Projects Committee and is in accordance with the procedures of the Kenya Bureau of Standards.

This standard is aimed at providing specification and guidance to all stakeholders to conduct all activities in a manner that ensures food safety and quality. It also intends to enhance compliance with statutory and regulatory requirements in Kenya.

Kenya Coffee and its product has its uniqueness in the world market and the desire to maintain the positive attribute of the product is one of the drivers towards development of this standard.

This first edition provides updates on existing national legislations and also covers requirements for new premix coffee introduced into the market.

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

CAC/RCP 1: 1969, General principles of food hygiene

KS CAC/RCP 69:2009: Code of practice for prevention and reduction of ochratoxin in coffee

CODEX Online Commodity details for coffee.

ITC (2012). Coffee: An Exporter’s Guide. ITC product and market development UNCTAD/WTO, Geneva, Switzerland

Acknowledgement is hereby made for the assistance derived from this source.

**Coffee premix ― Specification**

**1 Scope**

This Kenya standard specifies requirements, sampling and test methods for coffee premix.

**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

CAC/GL 66, *Guidelines for the use of flavourings*

CODEX STAN 192, *General standard for food additives*

CODEX STAN 234, *Recommended Methods of Analysis and Sampling*

KS EAS 12, *Portable water — Specification*

KS EAS 38, *Labelling of pre-packaged foods*

KS EAS 39, *Hygiene in the food and drink manufacturing industry - Code of practice* KS ISO 22000, *Food safety management systems — Requirements for any organization in the food chain*

KS 2221, *Coffee packaging-specification*

*EAS 105:2019 Instant coffee specification*

KS 2366, *Coffee code of practice*

**3 Terms and Definitions**

For the purposes of this document, the definitions given in KS ISO 3509 and the following shall apply.

**3.1 Coffee Premix**

A mixture or blend of instant coffee with one or more ingredients to which hot water is added to make a beverage.

**3.2 Creamer**

Milk or milk substitute

**3.3 Instant coffee**

Dried, water-soluble product, obtained exclusively from roasted coffee by physical methods using water as the only carrying agent that is not derived from coffe

**4 Ingredients**

All ingredients shall comply with relevant Kenya Standards

4.1 **Essential ingredients**

1. Instant coffee
2. Creamer

**4.2Optional ingredients**

1. Sugar
2. Sweetener
3. Flavourings
4. Approved additives

5. Requirements

**5.1 General requirements**

The coffee premix product shall be as follows:

**5.1.1 Appearance**

Coffee premix shall be fine grained and homogenous mixtures,

**5.1.2.1.2flavour, colour and odour**

Coffee premix shall be of characteristic flavour, colour and odour.

**5.1.3 Texture**

Coffee premix shall be free flowing

**5.1.4 Dispensability**

Coffee premix shall fully dissolve within two minutes in hot water with constant stirring and show no evidence of undissolved floating particles, be smooth and free from lumps or sedimentation

**5.1.5 Foreign matter**

All ingredients and finished product shall be clean,wholesome, and free from evidence of rodent or insect infestation.

**5.2 Specific requirements**

Coffee premix shall comply with the specific requirements given in Table 1 when tested in accordance with the test methods specified therein.

**Table 1 — Requirements**

|  |  |  |  |
| --- | --- | --- | --- |
| **S/N** | **Characteristic** | **Limits** | **Test method** |
|  | Moisture, % by mass, max. | 4.0 | AOAC  925.45A, 2007.04, or 2008.06 |
|  | Fat content % by mass | 15-25 | AOAC  932.06,985.15, 991.36, 2007.04, or 2008.06 |
|  | Total ash % by mass, max. | 7.0 | Annex A |
|  | Acid insoluble ash |  | Annex B |
|  | Caffeine Content | 1.0 | AOAC 979.11 AOAC 979.08 |
|  | PH |  | AOAC 981.12  BS EN 1132 |
|  | Brix | 14 | KS ISO 2173 |
|  | Insolubility index % by mass, max. | 1.5 | ISO 8156  EAS 81-6 |
|  | Total solids | 30 | AOAC 975.30 |

**6. Hygiene**

Coffee premix shall be processed and handled in hygienic manner in accordance with the EAS 39 and shall comply with the microbiological limits given in Table 2 when tested in accordance with test methods specified therein

**Table 2 — Microbiological limits for coffee premix**

|  |  |  |  |
| --- | --- | --- | --- |
| **S/N** | **Micro-organism** | **Maximum limit** | **Test Method** |
|  | Total plate count, per gram | ≤30,000 | ISO 16654 |
|  | *Staphylococcus aureus*, per gram | <100 | ISO 6888-1 |
|  | Salmonella, per 25 gram | Absent | AOAC 986.35, 996.08, 2000.06D(c), 2003.09, or 2011.03 |
|  | Yeast and moulds, per gram | ≤100 | ISO 4833-1 |
|  | Entrobacteriaceae | <100 | ISO 21528-2 |

**7 Food additives and flavourings**

When used it shall comply with codex Stan 192 and CAC/GL 66

**8 Contaminants**

**8.1 Pesticide residues**

Coffee premix shall comply with maximum pesticide residues limits established by the Codex Alimentarius Commission for this commodity.

**8.2 Heavy metal**

Coffee premix shall comply with the specific requirements given in Table 1 when tested in accordance with the test methods specified therein.

**Table 3— Limits for metal contaminants**

|  |  |  |  |
| --- | --- | --- | --- |
| **S/N** | **Metal** | **Maximum Limits mg/kg (ppm)** | **Test method** |
| a) | Lead | 2 | AOAC 986-15 |
| b) | Arsenic | 1.0 |
| C) | Cadmium | 1 |  |

**9 Packaging**

The Coffee premix shall be packaged in food grade material that ensure the integrity and the safety of the product

**10 Weights and measures**

The weight and fill of coffee premix shall comply with the weights and measures regulations or equivalent legislation.

**11 Labelling**

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

1. the name of the product;
2. net weight in SI units;
3. list of ingredients in descending order of proportion;
4. expiry date;
5. instructions for use;
6. conditions of storage;
7. country of origin;
8. lot/batch number;
9. Irradiation status where applicable; and
10. Allergens where applicable

**12 Sampling**

Sampling of coffee premix shall be done in compliance with CODEX STAN 234.

**Annex A**

A.1 Determination of total ash

A.1.1 Procedure

Place about 3 g of the ground material, accurately weighed, or the quantity specified in the monograph, in a suitable tared dish (for example, of silica or platinum), previously ignited, cooled and weighed. Incinerate the material by gradually increasing the heat, not exceeding 550 °C±25, until free from carbon; cool, and weigh. If a carbon-free ash cannot be obtained in this way, exhaust the charred mass with hot water, collect the residue on an ashless filter-paper, incinerate the residue and filter-paper, add the filtrate, evaporate to dryness, and ignite at a temperature not exceeding 450 °C.

A.1.2 Calculation

Calculate the content in milligrams of ash per gram of air-dried material.

A.2 Determination of acid-insoluble ash

**Annex B**

A.2.1 Acid insoluble ash

Procedure

Boil the ash for 5 min with 25 ml of hydrochloric acid (~70 g/l) TS; collect the insoluble matter in a sintered crucible, or on an ashless filter-paper, wash with hot water, and ignite at about 500 °C to constant weight.

A.2.2 Calculation

Calculate the content in milligrams of acid- insoluble ash per gram of air-dried material.