



**RWANDA
STANDARD**

**DRS
344**

Second edition

yyy-mm-dd

**Plant flavoured alcoholic drinks —
Specification**

ICS 67.160.10

Reference number

RS 344: 2023

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Foreword

Rwanda Standards are prepared by Technical Committees and approved by Rwanda Standards Board (RSB) Board of Directors in accordance with the procedures of RSB, in compliance with Annex 3 of the WTO/TBT agreement on the preparation, adoption and application of standards.

The main task of technical committees is to prepare national standards. Final Draft Rwanda Standards adopted by Technical committees are ratified by members of RSB Board of Directors for publication and gazettment as Rwanda Standards.

DRS 344 was prepared by Technical Committee RSB/TC 031, *Alcoholic beverages*.

In the preparation of this standard, reference was made to the following standard (s):

- 1) XYZ: Title
- 2) XYZ: Title

The assistance derived from the above source is hereby acknowledged with thanks.

This second/third/... edition cancels and replaces the first/second/... edition (RS nnn-n: yyyy), [clause(s) / subclause(s) / table(s) / figure(s) / annex(es)] of which [has / have] been technically revised.

(The first/second/third/... edition (RS nnn-n: yyyy) has been reaffirmed by the Board on dd-mm-yyyy.)

RS nnn consists of the following parts, under the general title *Introductory element — Main element*:

- *Part n: Part title*
- *Part [n+1]: Part title*
- *Part [n+2]: Part title*

Committee membership

The following organizations were represented on the Technical Committee on *Alcoholic beverages* (RSB/TC 031) in the preparation of this standard.

Paragraph of participants

Rwanda Standards Board (RSB) – Secretariat

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Plant flavoured alcoholic drinks — Specification

1 Scope

This Rwanda Standard specifies the requirements, sampling and test methods for plant flavoured alcoholic drinks.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

AOAC 986.15, *Arsenic, Cadmium, Lead, Selenium and zinc in human and pet foods*

AOAC 972.11 *Methanol in distilled liquors*

AOAC 999.10, *Lead, Cadmium, Copper, Iron and Zinc in, Atomic Absorption Spectrophotometry*

ISO 15214, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of mesophilic lactic acid bacteria — Colony-count technique at 30 degrees C*

RS 164, *Honey — Specification*

RS CAC/RCP 1, *General Principles of Food Hygiene*

RS CODEX STAN 192, *General Standard for Food Additives*

RS EAS 12, *Potable water — Specification*

RS EAS 38, *Labelling of pre-packaged foods — General requirements*

RS EAS 104, *Alcoholic Beverages — Method of sampling and testing*

RS EAS 144, *Neutral spirit — Specification*

RS ISO 1842, *Fruit and vegetable products — Determination of pH*

RS ISO 16050, *Foodstuffs — Determination of aflatoxin B1, and cereals, nuts and derived products — High performance liquid chromatographic method the total content of aflatoxins B1, B2, G1 and G2*

RS ISO 16649-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli — Part 2: Colony-count technique at 44 degrees C using 5-bromo-4-chloro-3-indolyl beta-D-glucuronide*

RS ISO 17240, *Fruit and vegetable products — Determination of tin content — Method using flame Atomic Absorption Spectrometry*

RS ISO 4832, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coliforms — Colony-count technique*

RS ISO 4833-1, *Microbiology of the food chain — Horizontal method for the enumeration of microorganisms — Part 1: Colony count at 30 degrees C by the pour plate technique*

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

RS ISO 6888-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 2: Technique using rabbit plasma fibrinogen agar medium*

RS ISO 21527-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 1: Colony count technique in products with water activity greater than 0,95*

3 Terms and definitions

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

3.1

plant flavoured alcoholic drink

alcoholic beverage obtained from fermented drinks which have been flavoured with suitable agricultural products

3.2

Fermented drink

beverage derived from fermentation of a sugary substrate/extract/juice originating from suitable agricultural products; using yeast, *Saccharomyces* spp as fermenting organisms with subsequent maturation process

3.3

Agricultural products

Products having sugar content level which can be fermented

3.4

organic or inorganic material other than the designated product

3.5

food grade packaging material

packaging material, made of substances which are safe and suitable for their intended use and which will not impart any toxic substance or undesirable odour or flavour to the product

4 Requirements

4.1 Essential ingredients

4.1.1 The following ingredients shall be used for the production of plant-based flavoured wine:

- a) suitable plant product complying with relevant standards;
- b) potable water complying with RS EAS 12; and
- c) sugar or honey complying with relevant standards or RS 164 respectively.

4.1.2 Before producing any plant flavoured wine the producer shall prove the safety and suitability of the used materials and the final product to the competent authority.

4.2 Optional ingredients

Plant flavoured alcoholic drink may be fortified by the addition of neutral spirit complying to RS EAS 144 or any other spirit complying with relevant standard.

5 General requirements

Plant flavoured alcoholic drinks shall:

- a) be clear, free from cloudiness and suspended/particulate matter;
- b) have typical flavour and taste characteristics of plant material; and
- c) be free from foreign matter.

NOTE Plant flavoured wine may be flavoured and coloured by using natural flavouring and colouring to adjust the flavour and the test.

6 Specific requirements

Plant flavoured alcoholic drinks shall comply with the requirements given in Table 1 when tested in accordance with test methods specified therein.

Table 1 — Specific requirements for plant flavoured alcoholic drinks

S/N	Characteristic	Limit	Test method
i.	pH	3.5 - 5.0	RS ISO 1842
ii.	Ethyl alcohol content, %, v/v	Low	0.5 3.5
		Medium	3.5-6.5
		Strong	6.6 - 14.0
iii.	Total solids, g/L, max.	150	RS EAS 104
iv.	Total sugar as invert sugar, g/L max.	25	
v.	Total acids, g/L	4 - 12	
vi.	Volatile acids, as acetic acid, g/L, max.	2.0	
vii.	Sorbic acid, mg/kg, max.	1 000	
viii.	Methanol, mg/L, max.	100	
^a Deviation of the actual alcohol content from the declared alcohol content shall not exceed 1%			

7 Food additives

Food additives complying with RS CODEX STAN 192 may be used.

8 Contaminants

8.1 Pesticide residues

Plant flavoured alcoholic beverages shall comply with the maximum residue limits for pesticides as established by the Codex Alimentarius Commission for the ingredients used in the manufacture of this product.

8.2 Heavy metals

Plant flavoured alcoholic drink shall not contain heavy metals in levels exceeding the limits indicated in Table 2 when tested in accordance with test methods specified therein.

Table 2 — Limits for heavy metal contaminants in plant flavoured alcoholic drink

S/N	Heavy metal	Maximum limit mg/L	Test method
i.	Arsenic (as As)	0.01	AOAC 986.15
ii.	Lead (as Pb)	0.2	AOAC 999.10
iii.	Cadmium (as Cd)	0.1	
iv.	Tin (as Sn)	150	RS ISO 17240

8.3 Aflatoxin limits

Plant flavoured alcoholic drink shall not exceed maximum limits for aflatoxin provided in Table 3 when tested in accordance with test methods specified therein.

Table 3 — Aflatoxin limits in plant flavoured alcoholic drink

S/N	Mycotoxin	Maximum limit µg/kg	Test method
i.	Total Aflatoxin	10	RS ISO 16050
ii.	Aflatoxin B1	5	

9 Hygiene

9.1 Plant flavoured alcoholic drink shall be manufactured and handled in a hygienic manner in accordance with RS CAC/RCP 1.

9.2 Plant flavoured alcoholic drink shall comply with limits for micro-organisms specified in Table 4 when tested in accordance with test methods specified therein.

Table 4 — Microbiological limits for plant flavoured alcoholic drinks

S/N	Microorganism	Maximum limit	Test method
i.	Total viable count, cfu/mL	10 ²	RS ISO 4833-1
ii.	Escherichia coli, cfu/mL	Absent	RS ISO 16649-2
iii.	Salmonella spp per 25 mL	Absent	RS ISO 6579-1
iv.	Staphylococcus aureus per mL	Absent	RS ISO 6888-2
v.	Lactic Acid Bacteria	Absent	ISO 15214
vi.	Moulds, cfu/mL	10 ²	RS ISO 21527-1

10 Weights and measures

The volume and fill of plant flavoured alcoholic drinks shall comply with national weights and measures regulations.

11 Packaging and filling

11.1 Plant flavoured alcoholic drinks shall be packaged in food grade packaging materials that shall maintain the quality of the product including glass bottles, tin cans, aluminium foil and/or any other suitable material certified by an accredited laboratory to be safe for packaging alcoholic beverages.

11.2 The contents of the products shall occupy not less than 90 % of the total volume capacity of the container

12 Labelling

In addition to the requirements of RS EAS 38, the following specific labelling requirements shall apply and shall be legibly and indelibly marked:

- d) name of the product as "" "Plant flavoured alcoholic drinks" list of ingredients in descending order;
- e) plant or plant parts used;
- f) ethyl alcohol content;
- g) name and physical and postal address of manufacturer;
- h) net contents in millilitres or litres;
- i) declaration of addition of neutral spirit;
- j) date of manufacture;
- k) expiry date, if alcohol content is less than 10 %;
- l) storage instructions; and
- m) statutory warnings.

13 Sampling

Sampling shall be done in accordance with RS EAS 104.

Annex A
(normative)

Annex title

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Bibliography

[1] RS 344: 2017, Plant flavoured wine — Specification

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