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Flavoured green tea — Specification

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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 476 was prepared by Technical Committee RSB/TC 002 on *Tea and Derived Products*.

In the preparation of this standard, the following documents

ISO 11287: 2011, *Green tea — Definition and basic requirements*

Committee membership

The following organizations were represented on the Technical Committee on Tea and Derived Products (RSB/TC 002) in the preparation of this standard.

Mulindi Factory Company Ltd

Mushubi Tea Company Ltd

National Agricultural Export Development Board (NAEB)

National Industrial Research and Development Agency (NIRDA)

Nyabihu TVET School

Rwanda Agriculture and Animal Resources Development Board (RAB)

Rwanda Food and Drug Authority (RFDA)

Shagasha Tea Company Ltd

Sorwathe Ltd

Rwanda Standards Board (RSB) – Secretariat

Flavoured green tea — Specification

1 Scope

This Draft Rwanda Standard specifies requirements, sampling and test methods for flavoured green tea of *Camellia sinensis* (Linneaus) O. Kuntze.

This standard is not applicable to green tea which is not flavoured or green tea subject to further processing such as decaffeination.

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.

ISO 1575, *Tea — Determination of total ash*

RS CAC/RCP 1, *General principles of food hygiene*

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

RS EAS 921, *Green tea — Specification*

RS ISO 14502-1, *Determination of substances characteristic of green and black tea — Part 1: Content of total polyphenols in tea – Colorimetric method using Folin — Ciocalteu reagent*

RS ISO 14502-2, *Determination of substances characteristic of green and black tea — Part 2: Content of catechins in green tea — Method using high-performance liquid chromatography*

RS ISO 15598, *Tea — Determination of crude fibre content*

RS ISO 1572, *Tea — Preparation of ground sample of known dry matter content*

RS ISO 1573, *Tea — Determination of loss in mass at 103 degrees C*

RS ISO 1576, *Tea — Determination of water-soluble ash and water-insoluble ash*

RS ISO 1577, *Tea — Determination of acid-insoluble ash*

RS ISO 1578, *Tea — Determination of alkalinity of water-soluble ash*

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 °C using 5-bromo-4-chloro-3-indolyl beta-D-glucuronide*

RS ISO 1839, *Tea — Sampling*

RS 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*

RS ISO 3103, *Tea — Preparation of liquor for use in sensory tests*

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. — Amendment 1: Broader range of incubation temperatures, amendment to the status of Annex D, and correction of the composition of MSR/V and SC*

RS ISO 9768, *Tea — Determination of water extract*

3 Terms and definitions

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

3.1

green tea

tea derived solely and exclusively from tender leaves, buds and shoots of varieties of the species *Camellia sinensis* (Linnaeus) O. Kuntze known, and produced by acceptable processes, notably enzyme inactivation by roasting or steaming, rolling, drying, sorting and grading to be suitable for making tea for consumption as a beverage

3.2

flavoured green tea

green tea to which flavorings and/or food ingredients with flavoring properties are added in order to lend a specific flavor

3.3

foreign matter

organic or inorganic material other than tea leaf

3.3

adulterant

any material intentionally added that changes the original composition and compromises the quality and safety of green tea

3.4

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 Ingredients**

Flavoured green tea shall:

- a) have green tea complying with RS EAS 921 as the basic ingredient; and
- b) contain flavouring agents complying with relevant standards and should be used in accordance with CAC/GL 66.

4.2 General requirements

4.2.1 Flavoured green tea shall:

- a) have characteristic flavour of the flavouring agent used;
- b) be free from taint;
- c) be free from foreign matter;
- d) be free from insects and moulds;
- e) be free from adulterants; and
- f) be free from added coloring matter other than those constituent of the flavoring agent.

4.2.2 Liquor for sensory assessment shall be prepared in accordance with RS ISO 3103.

4.3 Specific requirements

Flavoured green tea shall comply with the specific requirements given in Table 1 when tested in accordance with the test methods specified therein.

Table 1 — Specific requirements for flavoured green tea

S/N	Characteristic	Requirement	Test method
i.	Moisture content, %, (m/m), max.	7	RS ISO 1573

ii.	Water extract, % (m/m), min.	32	RS ISO 9768
iii.	Total ash, %, (m/m)	4 – 8	ISO 1575
iv.	Water-soluble ash of total ash, %, (m/m), min.	45	RS ISO 1576
v.	Alkalinity of water-soluble ash (as KOH), %, (m/m)	1.0 – 3.0 ^a	RS ISO 1578
vi.	Acid-insoluble ash, %, (m/m), max.	1.0	RS ISO 1577
vii.	Crude fibre, %, (m/m), max.	16.5	RS ISO 15598
viii.	Total catechins, %, (m/m), min.	7	RS ISO 14502-2
ix.	Total polyphenols, %, (m/m), min.	11	RS ISO 14502-1

NOTE 1 The minimum ratio of total catechins to total polyphenols is 0.5.

NOTE 2 Except for water extract, the requirements shall be determined using a ground sample prepared in accordance with RS ISO 1572.

^a When the alkalinity of water-soluble ash is expressed in terms of millimoles of KOH per 100 g of ground sample, the limits shall be 17.8 – 53.6.

5 Hygiene

5.1 Flavoured green tea shall be processed and handled in a hygienic manner in accordance with RS CAC/RCP 1.

5.2 Flavoured green tea shall not exceed microbiological limits given in Table 2 when tested in accordance with the test methods specified therein.

Table 2 — Microbiological limits for flavoured green tea

S/N	Microorganism	Maximum limit	Test method
i.	Yeasts and moulds, cfu/g	10 ⁴	RS ISO 21527-2
ii.	<i>Escherichia coli</i> , cfu/g	Absent	RS ISO 16649-2
iii.	<i>Salmonella spp</i> per 25 g	Absent	RS ISO 6579-1

6 Contaminants

6.1 Iron filings

When tested in accordance with Annex A, the amount of iron filings in flavoured green tea shall not exceed 150 mg/kg.

6.2 Pesticide residues

Flavoured green tea shall comply with the updated maximum pesticide residue limits established by the Codex Alimentarius Commission.

7 Packaging

Flavoured green tea shall be packaged in closed, clean and dry food grade packaging materials which do not compromise the quality and safety of the product.

8 Labelling

In addition to the requirements specified in RS EAS 38, each package of the flavoured green tea shall be legibly and indelibly labelled with the following:

- a) name of the product as “Flavoured green tea”; eg “Ginger flavoured green tea”;
- b) name and physical address of the manufacturer/packer/importer/exporter;
- c) date of manufacture;
- d) best before;
- e) batch/lot number;
- f) net weight in grams or kilograms;
- g) country of origin; and
- h) instructions for use and storage.

9 Sampling

Sampling for flavoured green tea shall be done in accordance with RS ISO 1839.

Annex A (normative)

Determination of iron filings

A.1 A.1 Apparatus

A.1.1 Magnet (at least 4 000 gauss)

A.1.2 Polythene sheet

A.1.3 Petri dish

A.2 A.2 Procedure

A.2.1 A known amount of (25 g) tea is spread evenly on petri dish.

A.2.2 A powerful magnet wrapped in polythene sheet is run over the sample repeatedly till no more iron filings cling to the magnet.

A.2.3 Collect the iron filings in a clean, dry and previously weighed petri dish.

A.2.4 Note down and express the mass of iron filings as mg/kg.

A.3 A.3 Calculation

$$\text{Iron filings} = \frac{M_1 \times 1000}{M_2}$$

where

M_1 is the mass, in grams, of iron filings, and

M_2 is the mass, in grams, of sample taken for the test.

Bibliography

- 1) ISO 11287: 2011, *Green tea — Definition and basic requirements*

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