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Pizza—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 621 was prepared by Technical Committee. RSB/TC 3, *of Cereals, pulses, legume and derived products*

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

1) FTZS 3617:2022 Frozen pizza — Specification

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

Committee membership

The following organizations were represented on the Technical Committee on *Cereals, pulses, legume and derived products* (RSB/TC 3) in the preparation of this standard.

ISHYO FOODS Ltd

Kigali Vision Development

Maya East Africa Limited

MINIMEX Ltd

Rwanda Consumer's Rights Protection Organization (ADECOR)

Rwanda Food and Drugs Authority (Rwanda FDA)

Sight and Life Rwanda

Skol Brewery Ltd

SOSOMA Industries Ltd

University of Rwanda, College of Agriculture, Forestry and Food Science (UR- CAFF)

University of Rwanda, College of Medicine and Health Sciences (UR-CMHS)

Rwanda Standards Board (RSB) – Secretariat

Pizza — Specification

1 Scope

This Draft Rwanda Standard specifies requirements, sampling and test methods for pizza intended for human consumption.

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 2013.06, *Arsenic, Cadmium, Mercury, and Lead in Foods*

AOAC 986.18, *Deoxynivalenol in wheat. Gas chromatographic method*

AOAC 999.11, *Lead, Cadmium, Copper, Iron and zinc in foods. Atomic absorption spectrophotometry after dry ashing*

EAS 900, *Cereals, pulses and their products —Sampling*

EAS 901, *Cereals, pulses and their products — Test methods*

ISO 11290-1, *Microbiology of the food chain — Horizontal method for the detection and enumeration of Listeria monocytogenes and of Listeria spp. Part 1: Detection method*

RS CXC 1, *General principles of food hygiene*

RS CXS 192, *General standard for foods additives*

RS EAS 12, *Potable water — Specification*

RS EAS 35, *Fortified edible salt — Specification*

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

RS EAS 803, *Nutrition labelling — Requirements*

RS EAS 804, *Claims on foods — General requirements*

RS EAS 805, *Use of nutrition and health claims —Requirements*

RS EAS 993, *Baking powder — Specification*

RS EAS 997, *Baker's yeast — Specification*

RS ISO 16050, Food stuffs — Determination of aflatoxin B1, B2, G1 and G2 in cereals, nuts and derived products- High- performance liquid chromatographic method

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

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 4833-1, *Microbiology of the food chain — Horizontal method for the enumeration of microorganisms Part 1: Colony count at 30 °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 6888-1, *Microbiology of food and animal feeding stuffs- Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) - Part 1: Technique using Baird-Parker agar medium*

3 Terms and definitions

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

3.1

pizza

dish typically made of flat leavened/ unleavened dough made from wheat flour and/or any other suitable flour, spread with a savoury mixture usually including pizza sauce, cheese and other toppings ready for baking.

3.2

pizza sauce

a layer of either raw tomato pieces or sauce of cooked tomato with or without spices or any other sauce used in topping during pizza making process.

3.3

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 Types of pizza

The following are common types of pizza based on the main ingredients used in pizza making. They include but are not limited to:

a) meat-based pizza: made up of fish or meat products such as beef, lamb, chicken, and

b) vegetable-based pizza: made of potato, onion, garlic, fresh ginger, green peas, carrot and other vegetable products

5 Requirements

5.1 Essential ingredients

The following essential ingredients shall be used in the preparation of pizza and shall be of sound quality and fit for human consumption and shall comply with relevant standards:

a) pizza base made of wheat flour and/or any other suitable flour;

b) topping materials based on types specified in clause 4;

c) potable water complying with RS EAS 12;

d) baking yeast complying with RS EAS 997 (for leavened product); and

e) baking powder complying with RS EAS 993 (for leavened product);

5.2 Optional ingredients

The following ingredients, among others, may be used as optional ingredients and when used they shall comply with relevant standards. They shall be of sound quality and fit for human consumption

a) chocolates;

b) edible fats or oils complying with relevant standards;

c) edible salt complying with RS EAS 35;

d) sugar complying with relevant standards;

e) milk and milk products;

f) cheese;

g) mushroom;

h) fruits and fruits products;

i) egg and egg products;

j) spices; and

k) honey.

5.3 General requirements

Pizza shall:

a) have a characteristic fresh and pleasant odour;

b) be free from foreign matters and impurities;

c) be free from visible mouldy appearance;

d) not have rancid odour; and

e) be flat with uniform size.

5.4 Specific requirements

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

Table 1—Specific requirements for pizza

S/N	Characteristics	Requirements	Test method
i.	Moisture content, %, max.	50	EAS 901
ii.	Total ash, %, m/m on dry basis, max.	4.0	EAS 901
iii.	Acid insoluble ash %, m/m max	0.2	Annex A
iv.	Acidity of extracted fat (as oleic acid), % by mass, max.	1.0	RS ISO 660
v.	Peroxide value, mEq. Peroxide-oxygen/kg oil, max.	10	RS ISO 3960

6 Food additives

Food additives when used in the preparation of pizza shall comply with RS CXS 192.

7 Hygiene

7.1 Pizza shall be shall be prepared, processed and packaged under hygienic conditions in accordance with RS CXC 1.

7.2 Pizza shall not exceed microbiological limits given in Table 2 when tested in accordance with test methods specified therein.

Table 2 — Microbiological limit for pizza

S/N	Characteristic	Limit	Test method
i.	*Salmonella* spp in 25g	Absent	RS ISO 6579-1
ii.	Total Plate Count, cfu/g. max	10^3	RS ISO 4833-1
iii.	*Escherichia coli* per g	Absent	RS ISO 16649-2
iv.	Yeasts and Moulds cfu/g, max	10^2	RS ISO 21527-2
v.	*Listeria monocytogenes* in 25g	Absent	RS ISO 11290-1
vi.	*Staphylococcus aureus,* cfu/g	Absent	RS ISO 6888-1

8 Contaminants

8.1 Pesticides and Veterinary drug residues

Pizza shall not exceed the maximum residue limits for pesticides, antibiotics and other veterinary drugs limits set by Codex Alimentarius Commission.

8.2 Heavy metals

Pizza shall not exceed the maximum limits of heavy metals specified in Table 3 when tested in accordance with test methods specified therein.

Table 3—Limits of heavy metals in Pizza

S/N	Heavy metals		Maximum limit (mg/kg)	Test method
i.	Lead		0.2	AOAC 999.11
ii.	Arsenic		0.1	AOAC 2013.06
iii.	Mercury [a]		0.03	AOAC 2013.06
iv.	Cadmium:	Meat-based pizza	0.05	AOAC 999.11
		Vegetable-based pizza	0.1	
a Applicable only for meat-based pizza				

8.3 Mycotoxins

Pizza shall not exceed the maximum limits of mycotoxins given in Table 4 when tested in accordance with test methods specified therein.

Table 4 —Limits of mycotoxins in Pizza

S/N	Mycotoxins	Maximum limit(µg/kg)	Test method
i.	Total aflatoxin	10	RS ISO 16050
ii.	Aflatoxin B1	5	RS ISO 16050
iii.	Deoxynivalenol (DON)	1000	AOAC 986.18

9 Packaging

Pizza shall be packaged in food grade packaging materials that safeguard the quality of the product.

10 Labelling

10.1 General

11.1 In addition to the requirements of the RS EAS 38, the product container shall be legibly and indelibly labelled with the following information:

a) name of the product as “meat-based pizza” or “vegetable-based pizza” according to clause 4;

b) name and physical address of the manufacturer;

c) batch/lot number;

d) date of manufacture;

e) expiry date;

f) net weight in metric units;

g) list of ingredients;

h) storage conditions; and

i) country of origin.

10.2 Nutrition and health claims

Pizza may have claims on nutrition and health. Such claims, when declared, shall comply with RS EAS 803, RS EAS 804 and RS EAS 805.

11 Sampling

Sampling shall be done in accordance with EAS 900

Annex A
(normative)

Determination of acid insoluble ash

A.1 Reagents

Dilute hydrochloric acid, prepared by diluting concentrated hydrochloric acid with water in a ratio of 2:5 or 5N.

A.2 Apparatus

A.2.1 Muffle furnace **at 600 °C ± 20 °C**

A.2.2 Water bath

A.2.3 Sintered crucible/Whatman filter paper No. 42

A.2.4 Platinum dish

A.3 Procedure

A.3.1 Weigh accurately 5 g -10 g of finely powdered pizza in a porcelain or platinum dish. Ignite the material in the dish with a suitable flame until it chars. Place the ignited pizza in the muffle furnace. Heat at 600 °C ± 20 °C for at least 1 h. Remove the dish from the furnace and cool.

A.3.2 Wet the ash with a suitable amount of hydrochloric acid, and place on a water bath for 10 min. Filter through a No. 1 sintered glass crucible/Whatman filter paper No. 42. Wash the crucible with water until the washings are free from acid. Dry the crucible in an air-oven for 2 h. Cool in a desiccator and weigh. Repeat the process until the difference between two successive weighings is less than 1 mg. Take the lowest mass.

A.4 Calculation

Acid insoluble ash, percent by mass, on wet basis, *Aw*, shall be expressed as follows:

$$\frac{M2}{M1} X\ 100$$

Where

A_w is the acid insoluble ash on wet basis;

M_2 is the mass, in grams, of insoluble matter; and

M_1 is the mass, in grams, of sample

Acid insoluble ash, percent by mass, on dry basis, A, shall be expressed as follows:

$$\frac{Aw\ X\ 100}{100 — M}$$

Where

A_w is the acid insoluble ash on wet basis; and

M is the moisture content of the pizza.

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