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Processed chili — 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 548 was prepared by Technical Committee RSB/TC 003, *Cereals, Pulses, Legumes and Cereal Products*.

Committee membership

The following organizations were represented on the Technical Committee on *Milk and milk products* (RSB/TC 004) in the preparation of this standard.

ADMA International Ltd

BAKHRESA Grain Milling

Benya Co. Ltd

CATAM

Monasalwa Ltd

Mount Meru Soyco Ltd

Mukamira Dairy Ltd

National Industrial Research and Development Agency (NIRDA)

National Industrial Research and Development Agency (NIRDA)

Nyarutarama Business Incubation Center

Rwanda Food and Drug Administration

Urwibutso Ese

Zamura Feeds Ltd

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Processed chili — Specification

1 Scope

This Working Draft Standard specifies the requirements, sampling and test methods for processed chili intended for direct human consumption excluding chilli oil and chilli sauce.

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 950.17, *Citric acid in non-alcoholic beverages*

AOAC 952.13, *Arsenic in food. Silver diethyldithiocarbamate*

AOAC 962.17, *Volatile oil in spices*

AOAC 973.34, *Cadmium in food. Atomic absorption spectrophotometric method*

AOAC 999.10, *Lead, Cadmium, Zinc, Copper, and Iron in Foods*

ISO 948, *Spices and condiments — Sampling*

ISO 3513, *Chillies — Determination of Scoville index*

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 CAC/RCP 1, *General principles of food hygiene — Code of practice*

RS CODEX STAN 192, *General standard for food additives*

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

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

RS ISO 3960, *Animal and vegetable fats and oils — Determination of peroxide value — Iodometric (visual) endpoint determination*

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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 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

processed chilli

product derived from sound and wholesome chillies, processed in any way (including cooking in oil or in water, steaming, drying and any other processing method) to which other edible ingredients and/or permitted food additives may be added.

3.2

fresh chillies

fresh, mature and clean chillies of Capsicum and/or preserved chillies

4 Ingredients

4.1 Essential ingredients

chillies complying with relevant standards

4.2 Optional ingredients

edible ingredients and/or food additives complying with relevant standards may be added.

5 Requirements

5.1 General requirements

Processed chilli shall:

- a) have the characteristic colour of ingredients;

- b) be free from any foreign matter; and
- c) be free from any objectionable flavours, .

5.2 Specific requirements

Processed chilli shall comply with the requirements as prescribed in Table 1.

Table 1 — Specific requirements for processed chilli

S/N	Characteristics	Limit	Test method
i.			
ii.	pH, max.	4.7	RS ISO 1842
iii.	Scoville index, Scoville Heat Unit	600 – 13 000	ISO 3513
iv.	Volatile oil, %, max.	2	AOAC 962.17
v.	Peroxide value, milliequivalents of peroxide oxygen/kg, max.	10	RS ISO 3960
vi.	Total soluble solids percent by mass (Brix), percent by mass at 20 °C, m/m, min	7	ISO 2173
vii.	Total ash, % m/m, max.	5.5	AOAC 920.181
viii.			

5.3 Microbiological requirements

Processed chilli shall conform to microbiological limits in Table 2.

Table 2 — Microbiological requirements in processed chilli

S/N	Characteristics	Maximum limit	Test method
i.	Total viable count, CFU/g	10 ³	RS ISO 4833-1
ii.	<i>E. coli</i> , CFU/g	Absent	ISO 16649-2
iii.	<i>Salmonella</i> , spp, in 25 g	Absent	RS ISO 6579-1
iv.	Yeast and moulds, CFU/g	10 ²	RS ISO 21527-1
v.	Staphylococcus aureus CFU/g	Absent	ISO 6888-1

6 Food additives

Food additives may be used in the preparation of processed chilli and shall comply with RS CODEX STAN 192.

7 Contaminants

7.1 Heavy metals

Processed chilli shall not contain heavy metals in excess of those given in Table 3.

Table 3 — Maximum limits for heavy metal contaminants

S/N	contaminant	Maximum limit (mg/l)	Test method
i.	Arsenic	0.5	AOAC 952.13
ii.	Cadmium	0.05	AOAC 973.34
iii.	Lead	0.5	AOAC 999.10

7.2 Pesticides residues

The products covered by the provisions of this standard shall comply with those maximum residue limits established by the Codex Alimentarius Commission.

8 Hygiene

Processed chilli shall be prepared and handled in accordance with the hygienic requirements stipulated in RS CAC/RCP 1.

9 Packaging

Processed chilli shall be packaged in food grade containers which shall safeguard on safety and quality of the product and the container shall be sealed and airtight.

10 Labelling

In addition to the requirements specified in RS EAS 38, Processed chilli shall be legibly and indelibly labelled with the following information:

- a) name of the product "Processed chilli";
- b) name and address of the manufacturer/packer;
- c) country of origin;
- d) list of ingredients in descending order;
- e) net weight in metric units;
- f) expiry/best before date;

- g) date of packing;
- h) batch number;
- i) storage instructions;
- j) instructions for use; and
- k) cooking oil used.

11 Sampling

Sampling shall be done in accordance with ISO 948.

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Annex A (normative)

Determination of specific gravity

A.1 Principle

The method involves use of specific gravity bottle which enables a liquid's density to be measured accurately by reference to an appropriate working fluid which is water. The specific gravity bottle is weighed empty, full of water, and full of a liquid whose specific gravity is desired. The ratio of the mass of a unit volume of a substance to the mass of a unit volume of water is then calculated as the specific gravity.

A.2 Apparatus

Specific gravity bottle/ pycnometer

A.3 Procedure

Clean and thoroughly dry the specific gravity bottle and weigh it. Fill it up to the mark with freshly boiled and cooled water, which has been maintained at a temperature of $20\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ and weigh. Remove the water, dry the bottle again and fill it with the material maintained at the same temperature. Weigh the bottle again.

A.4 Calculation

Specify the temperature of testing

Calculate as follows:

$$\text{Specific gravity at } 20\text{ }^{\circ}\text{C}/20\text{ }^{\circ}\text{C} = \frac{C-A}{B-A}$$

where

C is the mass, in grams, of the specific gravity bottle with the material,

A is the mass, in grams, of the empty specific gravity bottle, and

B is the mass, in grams, of the specific gravity bottle with water.

11.1.1.1.1

Bibliography

- [1] RS EAS 66-2: 2017 *Tomato products — Specification —Part 2: Tomato sauce and ketchup*
- [2] <https://tasteasianfood.com/peanut-sauce/>

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