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## Spices — Ground sweet and hot paprika (*Capsicum annuum* L. and *Capsicum frutescens* L.) — Specifications

Épices — Paprika doux et fort en poudre (*Capsicum annuum* L. et  
*Capsicum frutescens* L.) — *Spécifications*

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 7, *Spices, culinary herbs and condiments*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/SS C01, *Food Products*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 7540:2006), which has been technically revised. The main changes compared with the previous edition are as follows:

- an additional species, *Capsicum frutescens* L. has been added;
- the previous four categories have been replaced by sweet and hot paprika, and their physical and chemical specifications have been modified;
- the normative references have been updated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# Spices — Ground sweet and hot paprika (*Capsicum annuum* L. and *Capsicum frutescens* L.) — Specifications

## 1 Scope

This document specifies requirements for ground sweet and hot paprika.

Recommendations relating to storage and transport conditions are given in [Annex A](#). A list of terms used in different countries for paprika is given in [Annex B](#).

This document does not apply to ground chillies and other species of capsicums.

NOTE Specifications for ground chillies and capsicums are given in ISO 972.

## 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 927, *Spices and condiments — Determination of extraneous matter and foreign matter content*

ISO 928, *Spices and condiments — Determination of total ash*

ISO 930, *Spices and condiments — Determination of acid-insoluble ash*

ISO 939, *Spices and condiments — Determination of moisture content*

ISO 948, *Spices and condiments — Sampling*

ISO 1108, *Spices and condiments — Determination of non-volatile ether extract*

ISO 2825, *Spices and condiments — Preparation of a ground sample for analysis*

ISO 7541, *Spices and condiments — Spectrophotometric determination of the extractable colour in paprika*

ASTA Analytical Methods 21.3:2004, *Pungency of Capsicums and Their Oleoresins (HPLC method)*

## 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <http://www.electropedia.org/>

### 3.1

#### **additive**

material that help to maintain the original quality of products without hazardous effects on human health

### 3.2

#### **adulterant**

material added to improve the low quality of a product or to mask its defects

EXAMPLE Natural and artificial colouring agents, oleoresins, tomato powder, saccharin.

### 3.3

#### **extraneous matter**

all matter visible to the naked eye or with a maximum 10 times magnifying power, which are species waste belonging to the *Capsicum annuum* L. or *Capsicum frutescens* L. plant

### 3.4

#### **paprika**

product obtained by grinding the dry and mature fruits of *Capsicum annuum* L. or *Capsicum frutescens* L.

## 4 Description

### 4.1 Appearance

Ground paprika is the product obtained by grinding the ripe dried fruits of different varieties of *Capsicum annuum* L. and *Capsicum frutescens* L. of the Solanaceae plant family.

Ground paprika is prepared from the pericarp and the seeds of the paprika fruit. It may contain a variable amount of other parts of the fruit, such as the placenta, the calyx and the stalk.

The colour of ground paprika varies according to its quality, from vivid brilliant red through yellowish and brownish-red to pale reddish-brown.

### 4.2 Sensory characteristics

The taste of ground paprika can be pungent or free from pungency. Its odour shall be pleasantly aromatic.

Ground paprika shall be free of any off-tastes and off-odours, in particular musty or rancid ones, and from any foreign tastes and odours.

## 5 Requirements

### 5.1 General requirements

Treatments such as methyl bromide, phosphine, ethylene oxide and irradiation as well as processing aids and chemical bleaching agents may only applied after agreement between the buyer and the seller.

### 5.2 Physical requirements

#### 5.2.1 Extraneous matter

The maximum proportion of permissible extraneous matter present in ground paprika is 1 %. It shall be determined by visual examination in accordance with the method described in ISO 927.

#### 5.2.2 Sensory requirements

Odour and taste shall be characteristic. The material shall not leave any off-flavour.

### 5.3 Chemical requirements

Ground paprika shall conform to the specifications given in [Table 1](#).

Table 1 — Chemical requirements

| Characteristic   | Specifications   |                   | Test method |
|--|------------------|-------------------|-------------|
|  | Categories       |                   |             |
|  | Sweet paprika    | Hot paprika       |             |
| Total capsaicinoids content (in mg/kg)   | ≤ 30             | > 30 <sup>a</sup> | ASTA 21.3   |
| Scoville value (SHU) mg/kg × 16  | ≤ 480            | > 480             |             |
| Moisture content, mass fraction, % (maximum value)   | 11,0             | 11,0              | ISO 939     |
| ASTA extractable colour (minimum value)  | 60               | 30                | ISO 7541    |
| Total ash, on a dry basis, mass fraction, % (maximum value)  | 10,0             | 10,0              | ISO 928     |
| Acid insoluble ash, on a dry basis, mass fraction % (maximum value)  | 1,0 <sup>b</sup> | 1,6 <sup>b</sup>  | ISO 930     |
| Non-volatile ether extract, on a dry basis, mass fraction % (maximum value)  | 25               | Not applicable    | ISO 1108    |
| <sup>a</sup> If pungency is required, its degree should be the subject of agreement between the buyer and the seller.  |                  |                   |             |
| <sup>b</sup> If the product contains an anti-caking agent (max. 2 %), this value is allowed to be max. 3 % for sweet paprika and max. 3,6 % for hot paprika. |                  |                   |             |

## 5.4 Hygienic requirements

**5.4.1** It is recommended that ground paprika is prepared in accordance with the appropriate sections of the Codex Alimentarius Commission's Recommended International Code of Practice<sup>[4]</sup> and Code of Hygienic Practice for Spices and Dried Aromatic Plants<sup>[5]</sup>.

**5.4.2** Ground paprika shall be:

- free from microorganisms in amounts that can represent a hazard to health; more detailed requirements should be specified in the contract made between the buyer and the seller;
- free from parasites that can represent a hazard to health.

NOTE ISO 22000 specifies the requirements for the establishment, implementation, maintenance and continuous improvement of a good safety management system. ISO/TS 22004 gives guidance on the application of ISO 22000.

## 6 Sampling

Sampling shall be carried out as specified in ISO 948.

## 7 Test methods

Prepare a ground sample for analysis in accordance with ISO 2825.

Samples of ground paprika shall be analysed in order to ascertain their conformity to the specifications of this document by following the test methods referred in [Table 1](#).

## 8 Packaging, marking or labelling

### 8.1 Packaging

Ground paprika shall be packed in new, sound, clean, sealed packaging made of a material that cannot affect the product safety or quality, and that protects it from, for example, the ingress of moisture or loss of volatile matter and colour.

Any specific requirements relating to the packaging material or the size of the packaging shall be subject to agreement between the buyer and the seller.

## **8.2 Marking**

The container shall be marked or labelled with the following particulars:

- a) name of the product (botanical name and type of presentation), and trade name or trademark, if any;
- b) name and address of the packer or trader;
- c) code or batch number;
- d) category, if any;
- e) additives added;
- f) net mass;
- g) shelf-life of the product;
- h) name of the country of origin;
- i) producing area of the country of origin;
- j) any other information requested by the buyer;
- k) reference to the relevant International Standard if the product fulfils its specification.

The above information, or part of it, may instead appear in the documentation after agreement between the buyer and the seller.

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## Annex A (informative)

### Recommendations relating to storage and transport conditions

**A.1** Ground paprika should be stored in dry and cool, covered premises, well protected from the sun, excessive heat and moisture.

**A.2** The warehouse should be dry, free from unpleasant odours, and protected against the ingress of insects and other vermin.

**A.3** The packages should be handled and transported in such a manner that they are protected from rain, the sun or other sources of excessive heat, unpleasant odours and all contamination (cross-infestation), especially in the holds of ships.

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