

**Ground (powdered) paprika - Determination of total  
natural colouring matter content**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 7541:2010 sisaldab Euroopa standardi EN ISO 7541:2010 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 31.03.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 24.02.2010.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 7541:2010 consists of the English text of the European standard EN ISO 7541:2010.

This standard is ratified with the order of Estonian Centre for Standardisation dated 31.03.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 24.02.2010.

The standard is available from Estonian standardisation organisation.

ICS 67.220.10

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English Version

## Ground (powdered) paprika - Determination of total natural colouring matter content (ISO 7541:1989)

Paprika en poudre - Détermination de la teneur en matières colorantes naturelles (ISO 7541:1989)

Gemahlener (pulverisierter) Paprika - Bestimmung des vollständigen Gehalts an natürlichen, färbenden Substanzen (ISO 7541:1989)

This European Standard was approved by CEN on 31 January 2010.

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## Foreword

The text of ISO 7541:1989 has been prepared by Technical Committee ISO/TC 34 "Food products" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 7541:2010.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2010, and conflicting national standards shall be withdrawn at the latest by August 2010.

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### Endorsement notice

The text of ISO 7541:1989 has been approved by CEN as a EN ISO 7541:2010 without any modification.

# Ground (powdered) paprika — Determination of total natural colouring matter content

## 1 Scope

This International Standard specifies a method for the determination of the total natural colouring matter content of ground (powdered) paprika.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 939:1980, *Spices and condiments — Determination of moisture content — Entrainment method*.

ISO 948:1980, *Spices and condiments — Sampling*.

ISO 2825:1981, *Spices and condiments — Preparation of a ground sample for analysis*.

## 3 Principle

Extraction of the natural colouring matter content of ground paprika with acetone. Measurement of the absorbance of the solution obtained using a spectrometer at a wavelength of 460 nm.

## 4 Reagents

All reagents shall be of recognized analytical grade. The water used shall be distilled water or water of equivalent purity.

### 4.1 Acetone.

**4.2 Sulfuric acid**, 5 % (V/V) solution (to check the spectrometer, if necessary).

**4.3 Standard colour solution** (to check the spectrometer, if necessary), prepared as follows.

Weigh, to the nearest 0,0002 g, 1,3500 g of cobalt chloride hexahydrate ( $\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$ ) and 0,0125 g of potassium dichromate ( $\text{K}_2\text{Cr}_2\text{O}_7$ ) into a conical flask. Add 20 ml of the 5 % (V/V) sulfuric acid solution (4.2). Transfer this solution quantitatively into a 100 ml volumetric flask that has previously been rinsed with the sulfuric acid solution (4.2), further rinsing the conical flask three times with small quantities of the sulfuric acid solution. Then dilute to the mark with the sulfuric acid solution.

## 5 Apparatus

Usual laboratory apparatus and, in particular, the following.

**5.1 Spectrometer**, suitable for measurements at wavelengths of 460 nm, 465 nm and 477 nm, fitted with cells of 1 cm thickness.

**5.2 Sieve**, of nominal aperture size 0,63 mm.

**5.3 Analytical balance**.

**5.4 Shaking machine**, set to a speed of 270 to 300 vibrations per minute.

**5.5 Volumetric flasks**, of 250 ml capacity, made of amber glass.

**5.6 Graduated pipette**, of 5 ml capacity, fitted with a safety bulb.