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## Dried barberry — Specification and test methods

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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. [www.iso.org/directives](http://www.iso.org/directives)

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

This document was prepared by Technical Committee ISO/TC 34, Food products, Subcommittee SC 3, *Fruits and vegetables and their derived products*.

## Introduction

Barberries are found in temperate and subtropical regions around the world. Native species can be found in Europe and North America whereas a greater diversity of species can be found in Asia, Africa and South America. The flowers are either Orange or yellow, about 3 to 6mm long with both sepals and petals, six each in alternating whirls of three. The fruit is a small berry about 5 to 15mm long colored deep red or dark blue. They have waxy surface in either pink or violet and sometimes appear long but mostly spherical in shape.

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# Dried barberry — Specification and test methods

## 1 Scope

This International Standard specifies requirements and test method for dried barberry fruit of the *Berberis vulgaris* L. tree.

It is applicable to dried red barberries only.

## 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.

OECD FRUIT AND VEGETABLES SCHEME, 2018 - Guidelines on objective tests to determine quality of fruits and vegetables and dry and dried produce”

ISO 5516, *Fruits, vegetables and derived products — Decomposition of organic matter prior to analysis — Ashing method*

ISO 763, *Fruit and vegetable products - Determination of ash insoluble in hydrochloric acid*

Codex document “CXS 234-1999, RECOMMENDED METHODS OF ANALYSIS AND SAMPLING

## 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:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

### 3.1

#### **extraneous matter**

All matter visible to the naked eye which are species waste belonging to the plant which the product belongs; for example: macro extraneous matter can be floral waste; crushed stalk and buds.

### 3.2

#### **foreign matter**

Any matter visible to the naked eye that is not part of the plant to which product belongs. For example The origin of macro foreign matter can be non-animal (e.g. stems, stones, straw, visible moulds) or animal (e.g. excreta, insects, and insect-defiled product) foreign matter

### 3.3

#### **pest-infested**

Fruits damaged by insect and/or mite infestation.

### 3.4

#### **cap-stem/tailed barberry**

A piece of wood stuck to end of dried barberry fruit.

**3.5  
immaturity**

The amount of fruit which has not reached physiological maturity.

**3.6  
moisture content**

The quantity of water, expressed as a percentage by mass, distilled and collected in accordance with the method specified in referenced document.

**4 Description**

Dried barberries which are sour in taste are prepared from fresh barberries by drying process. Barberry fruits could be dried applying different methods such as shade-drying, sun-drying and industrial-drying.

The colour of the fruit is generally red but also black fruits have been found. Dried barberry is a native of temperate and semi-tropical regions of Europe, Asia, Africa, North America, South America and Iran.

**5 Classification and requirements**

**5.1 Classification**

Dried barberries are divided into groups according to their color.

**5.1.1 Groups**

Dried barberries are divided into two groups according to their color:

- Red
- Black

**5.1.2 Classes**

Dried Barberries are divided into three classes according to the quality requirements and diameter;

- Extra class,
- Class I,
- Class II

Class requirements of dried barberries according to their size limits are given in [Table 1](#).

Size of dried barberries shall be determined by measuring their shortest diameter (hereafter diameter).

**Table 1 — Size limits of dried barberries**

Diameter (cm)	Extra class	Class I	Class II
	≥0,7	> 0,5 < 0,7	> 0,3 ≤ 0,5

**5.2 Requirements**

**5.2.1 General requirements**

General quality requirements of dried barberry are given in [table 2](#).



Dried barberries shall be whole and sound and in natural colour. The odour and taste of the dried barberries shall be characteristic of the variety. The fruits shall be free from foreign odour and taste.

**Table 2 — General requirements**

Characteristic	Requirement
Living insects or mites	Free
Foreign matter	Mass fraction of 1% (Max.)
Extraneous matter	Free
Pest infestation	Mass fraction of 1% (Max.)
Tailed barberry/Cap-stem	Mass fraction of 3% (Max.)
Immaturity	Mass fraction of 1% (Max.)
Total ash	Mass fraction of 3,5% (Max.)
Acid insoluble ash	Mass fraction of 0,8% (Max.)
Moisture content	Mass fraction of 13% (Max.)

### 5.3 Tolerances

#### 5.3.1 Group tolerances

Extra class can include at most 5 % black barberries in total mass, Class I can include 8 % black barberries in total mass and Class II can include 10 % black barberries in total mass.

#### 5.3.2 Size Tolerances

The mass of barberries in the package, which does not comply with the limits specified in [table 1](#), shall be at most 10%.

## 6 Sampling

Samples are taken from the party dried barberry packaging and same inspection times are considered as a party. It is important that the laboratory receives sample which is truly representative and has not been damaged during transport and storage.

Sampling shall be done according to "OECD FRUIT AND VEGETABLES SCHEME".

## 7 Test methods

The physical inspections sniffing, testing, weighting of dried barberry are done.

If necessary, analyses given below can be also done.

### 7.1 Visual examination

Visual inspection of a test portion of dried barberries and physical separation of the different colored fruits.

#### 7.1.1 Procedure

Examine visually samples of dried barberry for conformity with the proportions of physical defects as below:

Living insects or mites,

Foreign matter