
**Cork — Cylindrical stoppers for sparkling
wines and gasified wines — Characteristics**

*Liège — Bouchons cylindriques pour vins mousseux et vins gazéifiés —
Caractéristiques*



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Printed in Switzerland

Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 4710 was prepared by Technical Committee ISO/TC 87, *Cork*.

This second edition cancels and replaces the first edition (4710:1988) which has been technically revised.

Cork — Cylindrical stoppers for sparkling wines and gasified wines — Characteristics

1 Scope

This International Standard specifies the characteristics of cylindrical cork stoppers for sparkling wines and gasified wines.

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, this publication do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 633, *Cork — Vocabulary*.

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 633 and the following apply.

3.1

sparkling wines

special wines made with grapes, with must or with wines treated according to the techniques approved under the International Vine and Wine Office (OIV) code for oenological treatments

NOTE 1 They are characterized by the production, upon opening the container, of a more or less persistent effervescence resulting from the release of carbon dioxide solely of endogenous origin.

NOTE 2 The gas in the bottle is under an overpressure of at least 3,5 bar¹⁾ at 20 °C above atmospheric pressure. However, the minimum overpressure for bottles of less than 25 cl capacity becomes 3 bar at 20 °C. Depending on the preparation technique, sparkling wines are classified into wines that develop their effervescence characteristic in the bottle and wines that develop their effervescence characteristic in a closed vat.

3.2

gasified wines

special wines derived from wines treated according to methods approved by the OIV and presenting physical characteristics similar to those of sparkling wines, but in which the carbon dioxide has a partial or total exogenous origin

¹⁾ 1 bar = 10⁵ Pa

4 Types

The following types of cork stoppers are used for sparkling wines and gasified wines:

- a) agglomerated cork stoppers with, however, one to three discs made of natural cork;
- b) stoppers made only of agglomerated cork.

5 Description

5.1 Agglomerated cork stopper with discs of natural corkwood

This is a stopper comprising a body of agglomerated cork of uniform compression lengthwise and one to three discs of natural corkwood glued to one end of the body (see Figure 1). Each disc shall present fully parallel faces and a thickness of 6 mm to 8 mm, with a minimum of 4 mm for the external disc when the stopper has two or three discs.

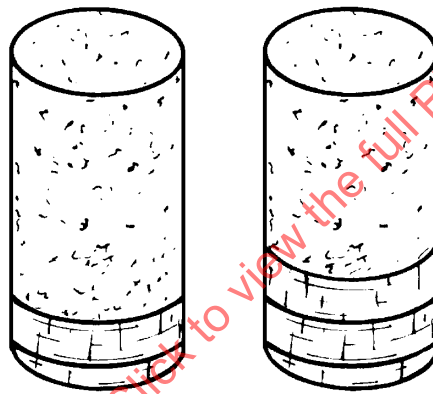


Figure 1 — Agglomerated cork stoppers with discs of natural corkwood

5.2 Agglomerated cork stopper

This is a stopper comprising a body of agglomerated cork (see Figure 2).

This type of stopper shall not be used for sparkling wines.



Figure 2 — Agglomerated cork stopper

6 Finish

Whatever their type and shape, cork stoppers shall have polished surfaces and mirror surfaces at right angles to the lateral surface.

Taking this perpendicularity into account, the top of the corks may, however, have a uniform chamfer of 3,5 mm to 5 mm.

7 Characteristics

7.1 Agglomerated cork stopper with discs of natural corkwood

7.1.1 Agglomerated cork

Granulated cork shall be produced from clean cork. It shall be free of dust and of rigid particles and/or particles extraneous to cork, as well as bark and lignin.

Agglomeration may be obtained by extrusion or moulding.

The body surface of the agglomerated cork stopper shall be polished and perfectly cylindrical, showing a uniform chamfer, if any.

7.1.2 Discs of natural corkwood

The discs shall have a minimum thickness of 4 mm and their aspect shall conform to the agreement between the supplier and client.

Also, during the selection of the cork for the production of discs, the raw material shall be chosen with consideration of any anomalies that may affect or alter the organoleptic characteristics of the wines with which the discs will come into contact, and that may hinder their utilization, such as ant holes, worm holes, green corkwood or dry vein.

Other anomalies, such as earthy corkwood, bark and lignified lenticels, shall have such dimensions that they do not endanger the performance of the cork stopper, and shall conform to the criteria of acceptance/rejection established between the supplier and client.

7.2 Agglomerated cork stopper

An agglomerated cork stopper shall conform to the conditions established in 7.1.1.

8 Dimensions

The choice of the dimensions of cork stoppers depends on the neck profil of the bottle to be used, and the agreement between the interested parties.

The dimensions of the most commonly used cork stoppers for standardized bottles (half-bottle, bottle and magnum) are the following:

- length: 47 mm to 48 mm; tolerance of $\pm 0,5$ mm;
- diameter: 29 mm to 31 mm; tolerance of $\pm 0,3$ mm.

9 Binder and treatment

The binder and the products used in the manufacture and treatment of the stoppers for sparkling wines and gasified wines shall conform to the regulations in force in the countries concerned.

10 Packing

The stoppers for sparkling wines and gasified wines shall be packed in resistant and ventilated packages.

When under the action of antiseptics, the stoppers shall be packed in hermetic packages.

Each package shall contain only one type of cork stopper for sparkling wines and gasified wines.

11 Marking

Each package shall be clearly and indelibly marked by the manufacturer with the following information:

- a) the manufacturer's name or identifying mark (even under a code form);
- b) the coded initials of the buyer, and the country or place of destination;
- c) the nominal dimensions of the stoppers;
- d) the number of stoppers.

12 Transport and storage

All packages shall be stored in a dry, clean and ventilated place until the cork stoppers are used.

Dryness and cleanness shall be maintained during transport.

Vehicles and containers which are contaminated by bad odours (i.e. odours which may affect or alter the organoleptic characteristics of the wines with which the corks will come into contact) shall not be used.