



Sparkling Wine Corks

Bottling Recommendations



1. Cork Closure Storage

If possible, cork stoppers must be used as soon as they are received.

Long periods of storage must be avoided. The recommended period of storage is of up to 6 months under normal storage conditions.

Packing must only be opened when the closures are going to be used.

Generally, cork stoppers are packed in bags containing sulphur dioxide SO₂ which acts as an antioxidant and antiseptic for their preservation.

Those cork stoppers that are not used must be repacked in bags containing SO₂.

Cork stoppers storage must be done:

In dry and cold places, with a stable temperature range from 15°C (59F) and 20°C (68F), and a relative humidity of 40% to 70%.

In odours and mould free places which are far from any kind of fuel, or chemical products such as cleaning products or paint.

Premises where there are no chloride treated woods, such as recently built ceiling structures.



It is essential to realize about the importance of these rules in order for the cork closures to have their original properties when actual bottling is made preserving them from contamination.

2. Bottling, Transporting and Storing Wine

Making use of corks compressibility, the bottling machine compresses the cork stopper in order to easily introduce it in the neck of the bottle.

A correct compression is one that compresses the cork 1.5 to 2 mm under the inner diameter of the bottle neck.

The **compression speed** of the sparkling wine cork must be as slow as possible and the **insertion speed** must be as fast as possible.

The depth insertion of the sparkling wine cork must be 24+/-1mm.

The cork stopper will recover its original volume in the next 5 to 10 minutes after corking of the bottle making use of its elasticity. It will adapt to any surface imperfection and apply a considerable force in the bottle neck walls.

It is recommended not to store the champagne bottles in a horizontal position.



Bottled wine is not immune to variations in temperature in any of the processes of transportation and storage apart from a couple of exceptions.

Consequences over bottled wine of variations in ambient temperature can be.

The dimensions of the bottle neck may change due to the effects of dilatations and contractions. As a guideline we can say that wine expands 0.2 ml. per degree centigrade (33.8 F) of increase in temperature, which in turn raises the internal pressure of the bottle.

Weather changes in the size of the bottle neck can be moderated by the cork making use of its elasticity; this will not work for changes in the volume of wine and the consequent change in the inner pressure. In order to avoid this problem, the following recommendations must be followed during the bottling process:

Bottle the wine at an ambient temperature between 15°C and 20°C (59F to 68F), to preserve the appropriate wine volume.

In case of still wines:

The corker must be set to allow a minimum space of 15 mm between the wine surface and the cork stopper (note that these value is for bottles of 750 ml.). This free space is essential to allow expansion of the wine in case of a rise in temperature during transport or storage. The amount and quality of the wine to be introduced in the bottle must be known in order to guarantee a free space inside the bottle. The country regulations in which the wine will be commercialized must also be taken into account.

Sparkling wines require a bigger free space inside the bottle.

For sparkling wines you must also follow the bottle filling high specifications, but the head space should be kept no less than 30 mm (free space between the wine and the cork).



Other facts to take into account in the bottling process

The premises where this process is carried out should:

- Be free of insects, especially *lepidopterous*.
- Be properly ventilated, through ventilation ducts and extractor fans.
- Be at a constant ambient temperature of 15°C to 20°C (59F-68F).

Bottles must be removed from the pallets when the bottling process is about to start. They must be well washed and **dried** before the process starts. (Almost all bottling machines do this automatically).

The pallets with full bottles on them must be kept in a cellar with stable temperatures and a dry atmosphere, with no mould and no chloride based products treated woods. The pallets must have, in between each row of bottles, sheets of a material other than card board, wood or a derivative of the last two.

The cork stoppers must never get onto contact with the wine or water before corking of the bottle.

The inner side of the neck of the bottle must be cleaned and dried, otherwise a very thin film of liquid which would difficult the expansion of the cork, and decrease its adherence to the glass of the bottle.

3. Maintenance of the bottling equipment

Good bottling machine maintenance is essential to achieve the best performance of the cork stoppers and therefore assure a long wine life.

Some recommendations on this matter are presented bellow:

Maintain the corks feeding channels very clean, as well as any other mechanisms of the bottling machine. Make sure the **piston and the centring cone are well aligned**; check also its conservation state. This step is essential for a correct insertion of the cork in the bottle neck.

Check frequently the level of wearing of the compressive gags, since a small defect can scratch the cork sides, which in turn can cause wine leaks or air filtrations.

The bottling machine must work smoothly, especially during compression of the cork stopper, but also rapidly when inserting the cork.

Maintain every surface that will make contact with the corks free of chloride based products.



Before starting with the bottling process, the whole machine must go under a sterilization process.

