

THE BEST OF BOTH WORLDS

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The newsletter from ProCork where technology and nature merge

BOTTLING PRECAUTIONS

The Importance of Filling Level and Filling Temperature

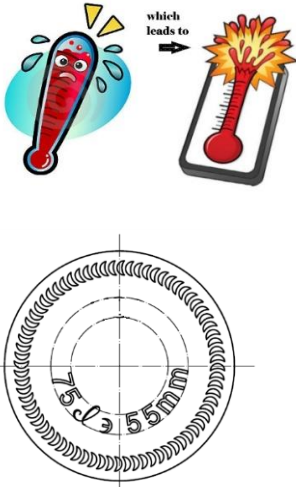
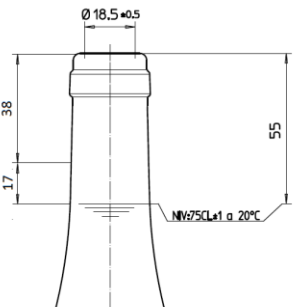
A bottle of wine is like a giant thermometer. As the temperature rises, the liquid level rises. With the bottles lying down, the pressure will ultimately exceed the sealing force of the stopper.

When bottling, it is important to take into account that it is possible for variations in temperature to occur during storage of the bottles, either:

- At the wine producer (6°C to 17°C)
- During transport
- In the distributor's warehouse
- At the shop or supermarket
- In the trunk of the consumer's car

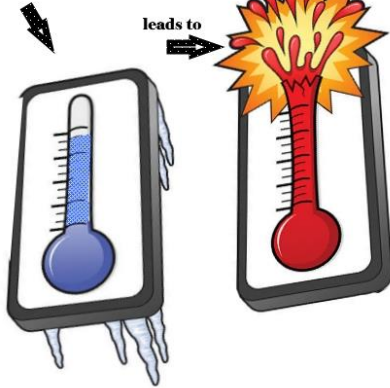
A head space (empty air space) between the stopper and the wine is essential and the headspace should be around 20 mm with the wine at 20°C. It is a general rule called the 20-20 rule. The exact levels are specified for each bottle shape.

There are two main causes of overfilling

<p>1 Specifying the Wrong Bottle</p> <p>The wrong bottle leads to overfilling</p>  <p>which leads to</p>		<p>The bottle indicates the level of filling (at 20°C) and the cork length has to match, for example if the bottle has the number 55 on the bottom, that means that it should be filled at 20°C up to 55mm from the top of the bottle and that it should have a 38mm cork, this is 38mm cork + 17mm headspace = 55mm. If a 45mm cork is to be used then it has to be discounted 7mm in the filling, this means the filling height must be 62mm.</p> <p>The same happens with a 63mm bottle, this is for a 45mm cork + 17/18mm headspace = 63mm. If a 49mm cork is to be then it has to be discounted 4mm in the filling, that is the filling height must be 67mm. However it is best to use a bottle molded with 67 with a 49mm cork.</p>
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2 Not reducing the fill height when filling cold wine

Filling to normal level when wine is cold



Bottling wine in the cold months requires the fill height to be reduced to stop pressure build up when the bottles warm up.

If the wine temperature is between 10 C and 20 C the fill height need to reduced up to 6mm to give a headspace of up to 25mm at bottling.

If the wine temperature is between 0 C and 10 C the fill height needs to be reduced 12mm to give a head space of up to 30mm at bottling.

The adjustment required is approximately 6mm per 10 C and the general Tables below can be used. It is best to use the fill curve specific to your bottle and your bottle supplier will be able to give you that on request.

Fill height adjustment required for a 49mm cork

Température du Vin	Niveau de Remplissage
24°C	65 mm
22°C	66 mm
20°C	67 mm
18°C	68 mm
16°C	69 mm
14°C	70 mm
12°C	71 mm
10°C	72 mm
8°C	73 mm
6°C	74 mm

Fill height adjustment required for a 45 mm cork

Température du Vin	Niveau de Remplissage
24°C	61 mm
22°C	62 mm
20°C	63 mm
18°C	64 mm
16°C	65 mm
14°C	66 mm
12°C	67 mm
10°C	68 mm
8°C	69 mm
6°C	70 mm

Fill height adjustment required for a 38 mm cork

Température du Vin	Niveau de Remplissage
24°C	53 mm
22°C	54 mm
20°C	55 mm
18°C	56 mm
16°C	57 mm
14°C	58 mm
12°C	59 mm
10°C	60 mm
8°C	61 mm
6°C	62 mm