Burgundy Report



In order to illuminate the discussion from my point of view, here are my thoughts.

Everyone knows that the natural cork is since decades the least bad means to preserve the wines.

But this is surely not the best.

In instances ranging from frankly corked wines, to wines completely oxidized, including false tastes, doubtful bottles, etc, the stopper were always accused, rightly.

Beyond the problem of TCA, most random with the corks is their porosity.

For approximately twenty years, I have worked with various laboratories to find an alternative to this kind of corking, by centering my efforts on the absolute regularity of porosity. Indeed, in addition to the capacity to preserve the liquid in the bottle, the cork has a role of oxygenator. My idea was thus to find a material porous but seals, which enables us to know scientifically how much oxygen the wine receives in a given time.

It is definitely not possible with natural corks.

The density of the material composing the natural cork is totally random.

If we take two corks taken in the same cork sheet and that one tests the density of it, therefore porosity, one obtains two completely different results. We have plenty of these experiences in laboratories.

So if by chance, one has still 2 bottles of 1959 Clos de la Roche kept in the same cellar since ever, for example... and that one opens one of them which appear excellent, one hope that the following bottle will be also good. And it is not always the case and this only because one stopper will have been more porous than the other. We have all did this bad experience with mature wines.

One of the most discussed subjects in the modern enology, being of a growing importance, relates to the permeability to gases of the various closures existing on the market, and more particularly the determination and the control of the transfer of oxygen from outside towards the interior of the bottle.

The main issue, now not-solved by the alternatives of conventional synthetic corking (extruded, Co-extruded section or molded), is the lengthening of the cork once positioned in the bottle neck over a long period of time. Indeed, the force of radial push exerted by the cork all the way along the bottle neck that ensure the gases sealing, decreases more and more with the time. That increases in a high and dangerous way the quantity of oxygen which crosses the system of corking.

The concept of corking that we use, thanks to the presence of an internal mechanical highstrength rigid techno-polymer frame, combined with an expanded thermoplastic "elastomer" [definition: polymer possessing visco-elasticity] partly external, confers on the cork a structure that prevents any lengthening, that it is due to the phase of congestion or the prolonged presence in the bottle neck. One thus eliminates the loss of continuous contact between the cork and the bottle neck, as well as the increase in the gaseous exchange related to the lengthening, which would lead to the premature oxidation of the wine.

courtesy Laurent Ponsot

Burgundy Report

To date, at the end of many studies on the structure of this kind of cork and its consequences, the Ardea Seal cork ensures a weak exchange of oxygen, hold in a very tight scale going from 0.009 to 0.018 cm3 of oxygen/24 hours. The difference between these two values is mainly due to the variation and the imperfections of the internal profile of the bottle necks.

It from now on is recognized that the contaminations by the molecules of the TCA's family or by certain moistures are a problem proven for natural cork, whereas alternative corking offers a great degree of chemical inertness. In order to still improve this inertness and to provide to the wine a complete protection, a genuine shield was adapted on the Ardea Seal cork. This one is composed of a techno-polymer chosen for its high chemical inertia, in order to completely avoid any possibility of appearance of an unspecified component in the wine. By the way, this is the material used to manufacture the artificial hearts.

Laboratories of enology subjected the product to the most severe tests of ageing and measurement of oxygen in time. All the tests were carried out in comparison with natural corking. The results are excellent in favor of Ardea Seal corks, as well on the level of its services as of the constancy of those. We thus have the scientific certainty that this cork has the same capacities as a hypothetical ideal natural cork for an ageing with very long run.

To conclude, the Ardea Seal cork respects the rite of opening of the bottle: it is extracted with a traditional corkscrew, producing the usual "pop" sound. Moreover it can be reinserted.

Some wineries that have already tried these corks are sometime not satisfied.

I think that it is due to the way the corks have been put in the bottles.

In order to get the full security, we have to use the perfect machinery during the bottling. Not everyone did use these specific corking machine and some corks, badly inserted in the bottles, were gripped by the bits and so let pass more air randomly, instead of doing it in a controlled way.

If I have chosen to use these corks, it is absolutely in accordance with my philosophy of respect of the authenticity.

Thus, having for years involved my passion into producing the most representative "terroir" wines, I really don't want them to die before they are grown up.

And I am convinced, from a scientific point, that these new closures are a kind of a revolution. And I understand that a revolution brings skepticism and fear.

In this case, blood will not run, and the one of God will be well preserved!

Laurent Ponsot