FLASH INFO

MARCH 2023

IOC

Révélons votre différence

PVPP: WHAT ARE THE ALTERNATIVES?

Faced with a drastic rise in the price of PVPP and increasingly uncertain availability, the use of this fining agent, which until now has been indispensable in many winemaking processes, is beginning to be seriously questioned. Already controversial because of its synthetic origin, its seemingly limitless inflation was a step too far. IOC has been involved for many years in finding alternatives to PVPP and now has concrete solutions for moving away from this fining agent.

AN IMPORTANT TOOL: OENOLOGICAL CHITOSAN

Since 2009, IOC's R&D department has been working on developing new fining agents based on the unique properties of oenological chitosans of fungal origin. This derivative of chitin from the fungus "*Aspergillus niger*" (the only source, along with more recently "*Agaricus bisporus*", authorised for use in oenology), is a natural biopolymer of the polysaccharide family, like cellulose or starch. There are various types of chitosans, depending on their chemical configuration and molecular weight. Some of them are developed for their fining properties.

The proven fining properties of chitosan are as follows:

Physical action

Clarifying properties:

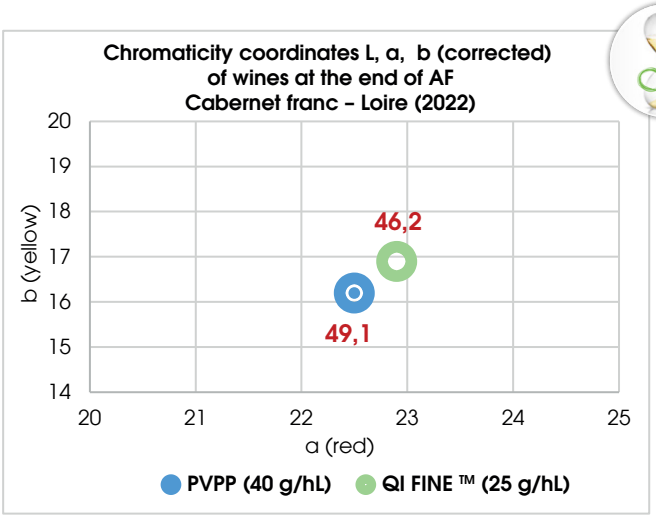
- High capacity and speed of flocculation and sedimentation due to its high density of electrical charge

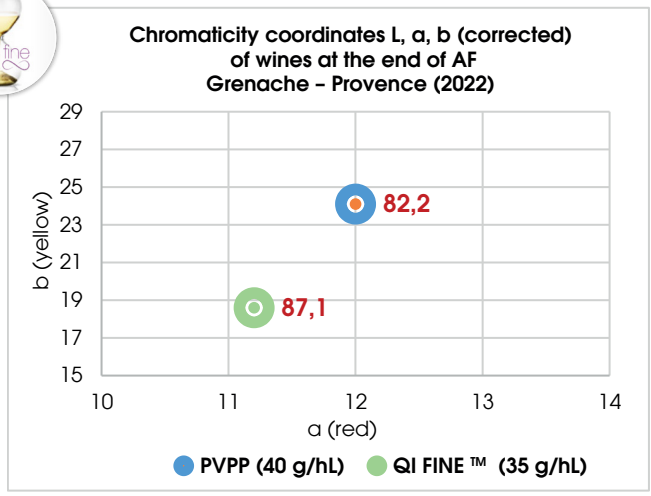
Chemical action

Antioxidant properties:

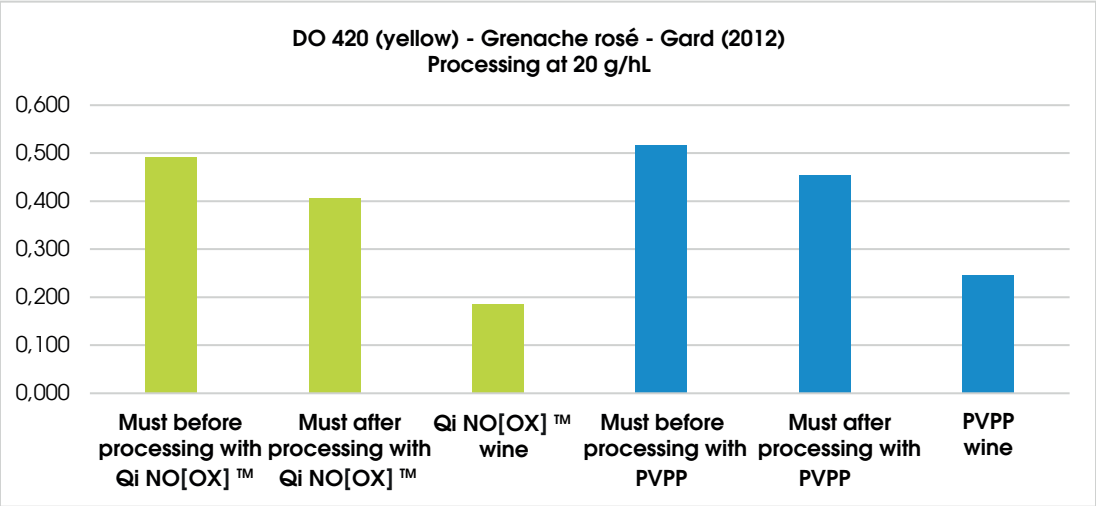
- Interactions with polyphenols
- Metal traps (Cu, Iron)
- Anti-radical properties

QI FINE ™ AND QI NO[OX] ™, SOLUTIONS ADAPTED AND STUDIED AS ALTERNATIVES TO PVPP





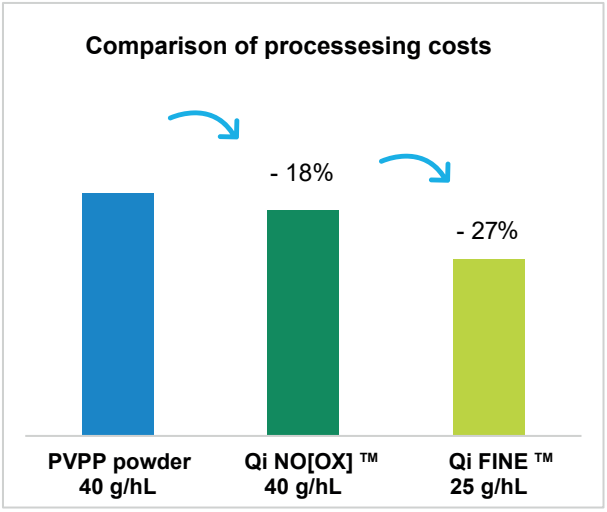
Our **Qi FINE ™** formula, composed of chitosan and pea protein, demonstrates a similar ability to reduce colour intensity as PVPP, with a 37% reduction in the processing dose (40 g/hL PVPP vs 25 g/hL **Qi FINE ™**). At slightly lower doses, it is more effective (40 g/hL PVPP vs 35 g/hL **Qi FINE ™**).



Qi NO[OX] ™ is also a strong alternative to the use of PVPP. It is composed of chitosan, pea protein and bentonite. The presence of bentonite will make it more suitable for use on wine, allowing for better sedimentation of the product at this stage as the elements are finer. It also has a slightly lower chitosan content than **Qi FINE ™**. **Qi FINE ™** will therefore be more interesting for use on must, thanks in particular to the anti-radical properties of chitosan.

In sensory terms, chitosan-based processing is preferred in the majority of cases, since it is a fining agent that is more respectful of the wines, partly due to its antioxidant action which preserves the aromas.

ECONOMICALLY SPEAKING, HOW DOES IT LOOK?



These alternatives, in addition to having proven technological advantages, are now more economical solutions at the recommended doses than a conventional processing with PVPP. Processing with **Qi NO[OX] ™** at the same dose provides a saving of almost 7%, up to 27% for processing with **Qi FINE ™** at the tested dose, showing similar results to PVPP (37% lower dose). For further information, please contact your IOC contact person.

→ For further information, please contact your IOC contact person or visit our website www.ioc.eu.com.