



ZENITH
FAQS

Frequently Asked Questions

What exactly is potassium polyaspartate (KPA) and how is ZENITH made?

Polyaspartic acid is a polyamino acid made by high-temperature polymerization of L-aspartic acid, an amino acid naturally found in grapes. Potassium polyaspartate is the potassium salt of polyaspartic acid.

How does ZENITH work?

As KPA is a negatively charged polymer at wine pH, it interacts with the positively charged potassium ions (K+) of KHT, inhibiting the growth and formation of crystals. Its stabilizing effect lasts long-term. Since the creation of the product, there has not been a treated bottle that has become unstable.

Why use ZENITH?

ZENITH has fast become a popular alternative to traditional cold stabilization and other additive methods. Its use is currently widespread in all major wine producing countries.

- ZENITH is completely filterable. With CMC, there is a chance that cellulose particles could form in the wine or membranes could be damaged if a filter is not rinsed properly after caustic cleaning.

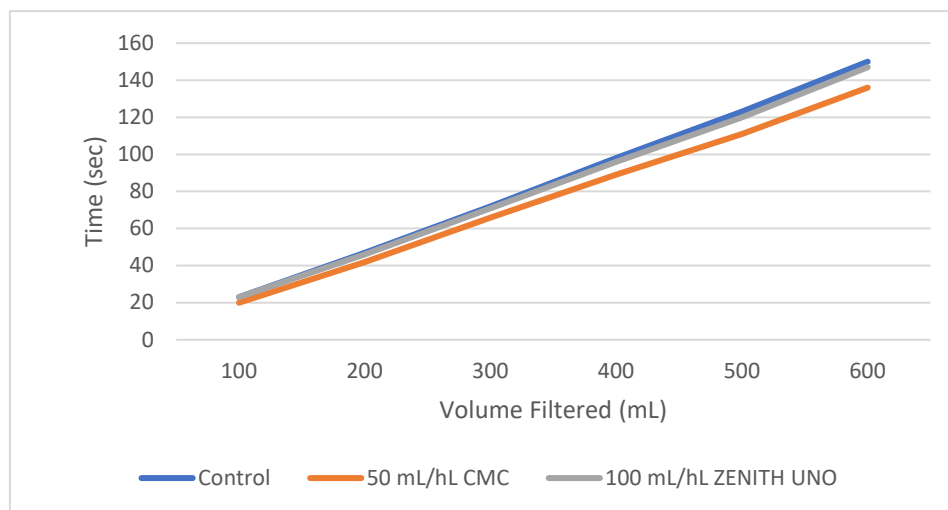


Figure 2. Wine filterability of sample treated with 10 g/hL KPA (100 mL/hL ZENITH UNO) compared to sample treated with 10 g/hL CMC using a 0.45 μ m filter.

- ZENITH is effective even at very high levels of instability (up to 30% conductivity change).
- ZENITH allows wineries to save up to 80% energy and potable water. Additionally, greenhouse gas emissions can be cut by 90% due to energy savings.

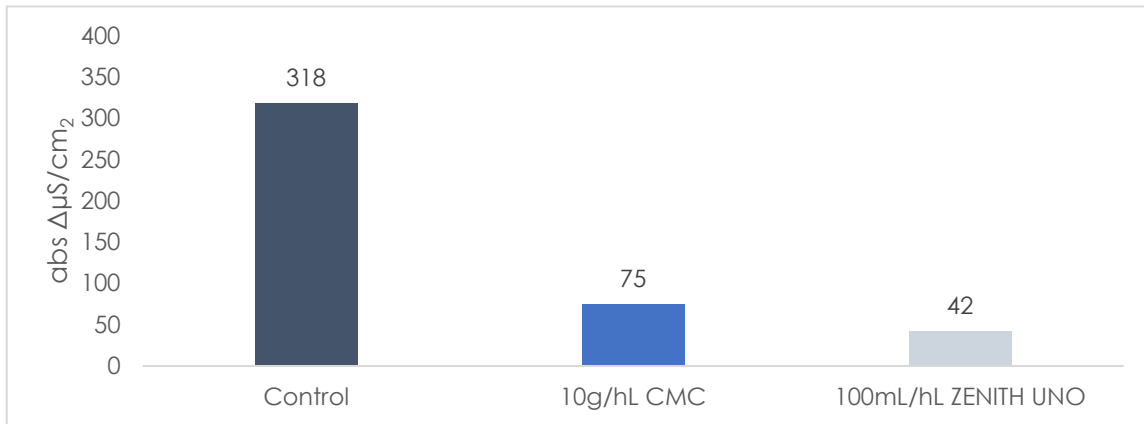


Figure 1. Extremely unstable 2017 Niagara wine. Wines which are greater than 70 abs. $\Delta\mu\text{S}/\text{cm}^2$ are considered unstable.

- It does not bind with red wine pigment and is therefore suitable for use in rosé and red wines.
- ZENITH is extremely easy to use, minimizing usage of tanks, pumps, and overall labor. Simply add the recommended dosage to the wine prior to bottling and homogenize.

Does my wine need to be protein stable prior to ZENITH addition?

Yes. Potassium polyaspartate has a strong negative charge and wine protein typically has a positive charge at wine pH. The electrostatic binding that occurs results in flocculation and precipitation of the oppositely charged particles, creating a haze. Removing proteins will eliminate the risk of protein precipitation or colloidal instability. To ensure protein stabilization while minimizing the stripping effect of bentonite, the use of [CLARIL ZW](#) or [CLARIL ZR](#) is recommended. Reach out to your Enartis Technical Sales Representative for best practices on protein stabilization before ZENITH treatment.

What is the best way to evaluate my wine for tartrate stability?

It is recommended to use conductivity measurements and a 6-day cold hold at -4°C . Freeze tests are not recommended, and do not accurately represent common storage conditions.

Can I make any further wine additions after adding ZENITH?

It is inadvisable. The solubility of wine protein depends primarily on temperature, alcohol level, ionic strength, and pH. Changes in any of these (as may occur with blending, bitartrate stabilization, MLF, etc.) may affect the potential for precipitation with a ZENITH addition.

Does ZENITH have a negative impact on filterability?

The ZENITH range was designed to address any filterability problems seen with other additive colloids. ZENITH UNO, ZENITH COLOR, and ZENITH PERLAGE have exceptionally low viscosity and are extremely filterable.

Why does the TDS suggest the turbidity be < 2 NTU?

We recommend the wine is < 2 NTU in order to ensure maximum efficacy of the product and avoid interaction with other particles in the solution.

What is the recommended dosage, and can I add less?

The recommended dosage of ZENITH UNO and ZENITH PERLAGE is 100 mL/hL. The recommended dosage of ZENITH COLOR is 200 ml/hL. To ensure the most stable wine possible over time, we do not recommend lower dosages.

I just received my results from a ZENITH Panel with a third-party lab. Could you help me interpret them?

If the difference between the unheated and heated samples following a heat stability test is < 1.5 NTU, the wine is protein stable, and ZENITH can be used. Following ZENITH addition at the recommended 100 mL/hL addition, the conductivity should be < 3 % ΔS ($\mu S/cm$). For more info see [ZENITH Third Party Testing for Whites and Rosés](#).

Do the mannoproteins in ZENITH PERLAGE affect protein stability?

No. Mannoproteins do not impact protein stability as they are negatively charged. They are added to improve foamability and perlage quality in sparkling wine.

I'm using ZENITH in my sparkling base wine. Should I consider how the increase in ethanol during secondary fermentation will affect tartrate stability?

Yes, because the solubility of potassium bitartrate decreases with the increase of ethanol. It is recommended to increase ethanol by 1.5% (v/v) before performing tartaric stability checks to mimic the alcohol increase from secondary fermentation.

I'm using ZENITH during secondary fermentation (*tirage*) of my sparkling wine which will be aged for several years. Will it remain tartrate stable?

When using ZENITH during secondary fermentation (*tirage*) for sparkling wine that will be aged for several years, tartrate stability generally depends on the stability of the base wine. In cases where the base wine is protein stable, long-term stability has been observed without requiring additional ZENITH at disgorging. However, if the base wine is protein unstable, interactions between proteins and colloids over time may reduce KPA activity, potentially necessitating an additional ZENITH addition to maintain tartrate stability. ZENITH can also help minimize gushing issues during disgorging by suppressing tartrate formation.

Do I need to protein stabilize red wine before using ZENITH COLOR?

Red wines typically have negligible protein content due to the superficial negative charge of polyphenols, and their interaction with wine proteins. For more info see [ZENITH COLOR In-House Testing](#).

If you have any further questions, please contact Technical Support at (707) 838-6312, or email support@enartis.com