



# ZENITH® LAB SCALE TRIAL TESTING

ZENITH® THE EVOLUTION OF WINE STABILIZATION FOR ALL WINES AT ALL LEVELS OF INSTABILITY

## What is Zenith®?

Zenith® is an innovative range of colloidal stabilizers of Potassium Polyaspartate (KPA). There are two products available for use in winemaking, both filterable:



	Composition		Application			
	Potassium Polyaspartate	Acacia verk gum Arabic	White Wine	Red Wine	Rosé Wine	Addition rate (mL/hL)
<b>ZENITH® UNO</b>	x		x	x	x	100
<b>ZENITH® COLOR</b>	x	x		x		200

## How to Use Zenith®?

Add to wine and gently stir for a few minutes before conducting stability test.

## Wine Requirements Before Using Zenith®:

Wine to be treated with Zenith® need to be:

- protein stable (whites and rosés)
- low turbidity (< 1 NTU)

If these two conditions are not met, it is not advised to use Zenith® for tartrate stabilization.

## Recommended Testing:

	Wine before Zenith® addition		Wine after Zenith® addition	
	White and Rosé Wine	Red Wine	White and Rosé Wine	Red Wine
<b>Turbidity (&lt; 1 NTU)</b>	x	x		
<b>Protein Stability</b>	x			
<b>Tartrate Stability</b> (Mini-contact test)	x	x	x	x
<b>Tartrate Stability</b> (Cold-hold)	x	x	x	x
<b>Color Stability</b>				x

## Reference Test Procedures:

### 1. PROTEIN STABILITY

The reference test used to evaluate Heat Stability is the **Heat Test with Tannin**:

Add 1 mL of 5% gallic tannin solution (5 g of Enartis Tan Blanc dissolved in 100 mL of distilled water, filtered through 0.45 micron membrane) to 20 mL of wine filtered through a 0.45 micron membrane. Measure turbidity (T1). Place wine in a water bath at 80 °C for 30 minutes. Allow sample to cool down to room temperature and measure the turbidity again (T2).

The wine is considered **protein stable** if **T2-T1 < 10**

## 2. TARTRATE STABILITY

### Mini-Contact Test

The mini-contact test measures the drop in conductivity for a 20 minute period after a sample has been cooled to 0°C and seeded with potassium bitartrate crystals.

The wine is considered **cold stable** if  $\Delta\mu S < 3\%$

### Cold Hold: - 4 °C for 6 days

Filter 100 mL wine through a 0.45 micron membrane into a 100 mL glass Imhoff flask. Place the sample in refrigerator at -4°C for 6 days. After 6 days, check for the presence of crystals in the flask.

**The absence of KHT crystals means stability**

## 3. COLOR STABILITY

### Cold Hold: -4°C for 24 hours

Filter 100 mL wine through a 0.45 micron membrane into a 100 mL glass Imhoff flask. Place the sample in refrigerator at -4°C for 24 hours. After 24 hours, check the amount of color matter present on the bottom of the tube.

**The absence of color precipitate means stability**

For additional information on the methods above, please contact our Technical Department at (707) 838-6312 ext. 4.



(Checkstab instrument for automated Mini-Contact Test)

