BEST PRACTICES AND TIPS TO IMPROVE

COLLOIDAL STABILIZATION

Colloidal stabilization is a critically important step in ensuring the clarity and stability of wine over time. This process aims to prevent the formation of colloidal aggregates that could precipitate, causing cloudiness and sediment in the bottle. This phenomenon results in a loss of aromatic quality and creates a negative impact for the consumer.

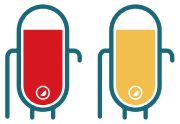
Inline stabilization: Precision and safety for the stabilization of your wine

Colloidal stabilization using stabilizing colloids (ZENITH made from KPA and gums) represents an increasingly popular and sustainable strategy to achieve and guarantee wine stability over time, while respecting sensory characteristics. To ensure precise dosing and sufficient homogenization of stabilizing colloids in wine, ENARTIS ENGINEERING has developed EE CDS01, a dosing system integrated with the bottling line that ensures a continuous, safe and precise stabilization process.

At each step during winemaking, it is important to act in a targeted and timely manner.

1

Clarification



Eliminate proteins that cause cloudiness and unstable color. The use of **CLARIL ZR** in red wines and **CLARIL ZW** on whites prepares wine for subsequent stabilization with **ZENITH**.

2

Microfiltration

Once a pump is connected to the bottling line and a continuous, uninterrupted flow is generated, **EnartisPore** cartridges ensure maximum microbiological protection after filtration.

3

Dosing

The **EE CDS01** dispenser automatically takes the exact amount of stabilizer needed and injects it directly into the wine stream, ensuring accurate and consistent dosing even when flow rates change.

4

Bottling

The wine, completely microfiltered and stabilized, is transferred directly to the bottling machine without interruption, thus minimizing risks of oxidation and contamination by external agents.

Wine Stability Parameters

Prior to colloidal stabilization, it is necessary to carry out predictive stability tests and, if needed, to remove protein and unstable color through targeted clarification.

WHITE AND ROSÉ WINES

- ✓ Protein stability
- ✓ KHT tartaric stability
- ✓ Colloidal stability

RED WINES

- ✓ Dye stability
- ✓ KHT tartaric stability

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Why use Inline Stabilization with Protective Colloids

The use of stabilizing colloids makes it possible to drastically lower energy consumption and the environmental impact of the stabilization process, making it easier and more economical.

ZENITH (KPA)

- ✓ Reduction of energy consumption, drinking water and CO_2 emissions
- ✓ Respects sensory characteristics and maintains acidity and structure

GUM ARABIC

- ✓ Stabilization of color matter
- ✓ Improved sensory balance

The EE CDS01 metering pump enables safe and accurate dosing, reducing the risk of human error and labor costs. Inline stabilization is the winning strategy for an agile, accurate and sustainable process.

A Focus on Stabilizing Colloids

ENARTIS RECOMMENDATION	OBJECTIVE	DOSAGE
ZENITH MEGA Potassium polyaspartate, Verek gum Arabic, and mannoproteins	Sensory improvement and tartaric stabilization of very unstable red wines	Up to 200 mL/hL
ZENITH WHITE NF Potassium polyaspartate, CMC, and Seyal gum Arabic	Tartaric stabilization of very unstable white and rosé wines and increase flavor balance	Up to 150 mL/hL
MAXIGUM PLUS Verek gum Arabic	Stabilization of color matter in red and rosé wines and decrease bitterness	50 - 100 mL/hL
CITROGUM PLUS Seyal gum Arabic and mannoproteins	Increase sensation of sweetness and volume and decrease astringency	100 - 300 mL/hL

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