





# **RED WINES TO BE AGED**

**ES 488** is a yeast for the production of high quality red wines made from well-ripened grapes to enhance varietal expression and flavor intensity.

## **SENSORY CHARACTERISTICS**

ES 488 is a strain recommended for the production of "new world" style red wines destined for ageing.

It enhances and intensifies the varietal characteristics of very ripe red grapes. In particular, it enhances red fruit aromas (raspberry, cranberry, red currant and kirsch cherry) and increases complexity by adding mineral, spicy (liquorice) and floral (violet) notes. Resulting wines are already aromatically expressive at the end of alcoholic fermentation.

ES 488 also helps mask herbaceous aromas found in grape varieties such as Cabernet Franc and Cabernet Sauvignon.

It has a great extraction capacity, producing wines with notable structure and color stability.

In wines with high alcohol content, it helps reduce burning sensations.

## **MICROBIOLOGICAL CHARACTERISTICS**

Fermentation temperature	15 - 28ºC (59-82 ℃)
Lag phase	short
Fermentation speed	medium
Alcohol tolerance	≤ 16% v/v
Killer factor	killer

## **ENOLOGICAL CHARACTERISTICS**

Nitrogen needs	high
Oxygen needs	high
Volatile acidity production	low
H <sub>2</sub> S production	medium-low
SO <sub>2</sub> production	low
Foam production	low
Compatibility with malolactic fermentation: high, it favors start of MLF	
Wines aromatically opened already at the end of the alcoholic fermentation.	
Low adsorption of color on the yeast cell wall.	

### **APPLICATIONS**

Red wine obtained from well-ripened grapes and destined for medium-to-long ageing. Syrah, Cabernet Sauvignon, Cabernet Franc, Merlot, Malbec, Tempranillo, Sangiovese, Zinfandel, Barbera, Dolcetto.







### **MAXIMIZING QUALITY**

To enhance fruit character, **Nutriferm Arom** or **Nutriferm Arom Plus** can be added as a nutrient source at inoculation. **Nutriferm Arom** and **Nutriferm Arom Plus** supply specific amino acids that **ES 488** can use to synthesize aromatic compounds. An alternative is to add **Enartis Tan Red Fruit** during fermentation. This tannin contains aromatic precursors responsible for the production of cherry and fresh fruit notes which are released by hydrolytic enzymes produced by **ES 488**. If following this second strategy, a complex nutrient such as **Nutriferm Energy** should be added at inoculation as well as **Nutriferm Advance** at 1/3 sugar depletion in order to ensure a clean and complete fermentation.

**Enartis Pro Tinto** can be used during the fermentation to stabilize aromas and balance tannins. Resulting wines have more intense and persistent aromas, a smoother mouthfeel and are more drinkable at an earlier age.

#### DOSAGE

20-40 g/hL (1.67 – 3.3 lb/1000 gal)

The highest dosages are recommended in cases of rotten grapes, high sugar content and difficult microbiological conditions.

### **INSTRUCTIONS FOR USE**

- Suspend dry yeast in 10 times its weight of clean, warm (35-38 ℃ or 95-100 ℃) water. Stir gently.
- Let suspension stand for 20 minutes, then stir gently again.
- Add suspension to juice when beginning to fill the fermentation tank. The difference in temperature between yeast suspension and juice should not exceed 10 ℃ (18 °F).
- Homogenize by pump-over or mixing inoculated juice.

Working to the above-mentioned times and methods ensures maximum activity of re-hydrated yeast.

### **PACKAGING AND STORAGE**

Vacuum packed in 0.5 and 10 kg

Sealed package: keep product in a cool (5-15  $^{\circ}$ C or 41-59  $^{\circ}$ F), dry place. Opened package: carefully reseal package and store as indicated above; use quickly.

Product approved for winemaking by the TTB. Legal Limit: N/A

Product is in compliance with the Codex Œnologique International.

Product approved for winemaking in accordance with Reg. (EC) N. 606/2009

Contains E 491 Sorbitan monostearate