

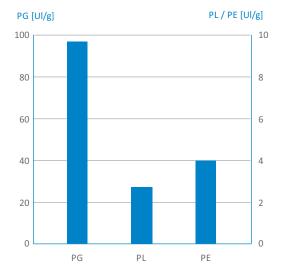


# **Maceration of red grapes**

## Characteristics

**Enovin Color** is an enzymatic preparation designed specifically for the maceration of red grapes. It enables increased extraction of phenolic compounds, more intense aromatic properties, and increased pressing yields.

It allows maceration time to be reduced, which is desirable in harvests with rot or when a vintner needs to reuse the fermentation vat quickly.



Measurement of effective enzyme activity in vinification: Substrate: PG: polygalacturonic acid; PE and PL: highmethoxyl pectin, (pH: 3.5; Temp.:  $30^{\circ}C = 86^{\circ}F$ ).

IU: International Units

	Reference wine	Wine with added anzymes
Abs 280	64	66
Tannins (g/l)	3,5	3,8
Anthocyanins (mg/l)	768	895
Cl	1,58	1,68
Tonality	0,44	0,40
% Abs 420	27,8	26,2
% Abs 520	63,0	65,3
% Abs 620	9,2	8,5

Influence of **ENOVIN COLOR** pectolytic enzymes on colour extraction in red winemaking.

# **Application**

- Enovin Color is the enzyme indicated for the maceration of grapes from red varietals, increasing the extraction of polyphenolic and aromatic material from the harvest.
- The product can be applied to the fermentation vat during vatting, or directly over the grapes before or after crushing.
- Addition of the enzyme allows rapid clarification and improved filtration.

## Activity [IU/g]

Polygalacturonase: PG	99	
Pectin lyase: PL	4	
Pectin methylesterase: PE	3,3	

## **Enzymatic activity**

**Enovin Color** has pectolytic activity as well as cellulase and hemicellulase activity, which allows intense degradation of the cell membranes of the skins.

Enovin Clar is free of cinnamyl esterase (FCE) activity.

# Dosing

Red wine maceration >2 g/100 kg
Pressing >3 g/100 kg

PLEASE NOTE: The working dose should be optimised for temperature, maceration time and grape varietal.

High ethanol concentration denatures the enzymes. Ethanol concentrations above 14%vol are compensated with larger doses and/or longer reaction times.

## Instructions for use

- Dilute the dose of Enozym Color in 10 times its weight of water.
- 2.- Add the solution to the entire volume of fruit to be treated, either when removing the fruit from the crusher or when filling the vat, and stirthoroughly.

Adding the preparation with a metering pump ensures uniform product distribution.

#### Precautions.

- SO<sub>2</sub> and the application of oenological tannins at the dosages usually used do not interfere with enzyme activity. However, they should not be added together with the preparation.
- Use the product within three hours of preparation.

# Physical appearance

Cream-colored granulate.

## Presentation

100 g and 15 kg packages.

# Microbiological and physico-chemical properties

Salmonella [UFC/25g]	Absent
Total coliforms [UFC/g]	< 30
E. coli [UFC/25g]	Absent
Antimicrobial activity	Undetectable
Mycotoxins	Undetectable
Pb [mg/kg]	< 5
Hg [mg/kg]	< 0.5
As [mg/kg]	< 3
Cd [mg/kg]	< 0.5

## **Production**

**Enovin Color** is obtained from specific cultures of the nongenetically modified (GMO-free) filamentous fungus *Aspergillus niger* on natural media. Enzymes are extracted with water, then purified, concentrated and standardised.

# **Storage**

Store in the original packaging in a cool, dry, odour-free place.

Once open, maintain at a temperature of 4 °C.

Prolonged exposure to temperatures above 35 °C and/or moisture will reduce its effectiveness.

REGISTRATION: R.G.S.A: 31.00391/CR

Product compliant with International Oenological Codex and EC Regulation No. 606/2009.

