

# Enzyme precision **Enozym VINTAGE**

## Colour extraction and stability.

### Characteristics

**Enozym Vintage** is an enzymatic preparation designed for the extraction and stability of polyphenol compounds during the fermentative maceration of red grapes.

The purpose of this product, in addition to extracting colour, is achieve colour stability by means of a balanced extraction of tannins, anthocyanins and polysaccharides.

The specific action of this product is suitable for the medium- and long-duration maceration of grapes for the production of barrel-aged wine.

### Application

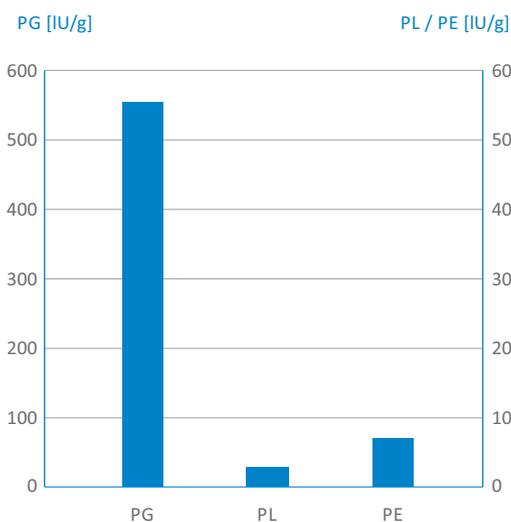
- **Enozym Vintage** enables efficient maceration of the grapes of red varieties by facilitating the **balanced extraction of anthocyanins and tannins. Stability is ensured by combination with polysaccharides.** This is a very desirable effect when tannins are added because it improves the stability of exogenous tannin.
- **Extraction of aromatic compounds from the cells of grape skins.** Wines treated with this enzyme **express varietal aromas and have greater fullness in the mouth**
- **Maceration time can be reduced** by 25%, a desirable effect in short vatting. The glucanase activity controls the presence of glucans from *Botrytis* (late harvest, grapes of poor sanitary quality) and facilitates subsequent wine filtration.

### Enzymatic activity

The product contains a **balanced proportion of pectolytic enzymatic activities:** pectin lyase (PL), polygalacturonase (PG) and pectinesterase (PE).

**It has high** cellulase and hemicellulase **secondary activities**, which act on the cell walls of grape skins. The product has effective  **$\beta$ -glucanase activity** against varietal polysaccharides and lees in suspension. Its **protease activity** acts on membrane proteins to facilitate tannin extraction.

**Enozym Vintage** is free of cinnamyl esterase (FCE) activity.



Measurement of effective enzyme activity in vinification:  
Substrate: PG: polygalacturonic acid; PE and PL: high-methoxyl pectin. (pH: 3.5; Temp.: 30°C = 86°F).

IU: International Units.

	Activity [IU/g]
Polygalacturonase: PG	546,6
Pectin lyase: PL	2,8
Pectin methylesterase: PE	7,3

## Dosing

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Red wine maceration	> 1 g/100 kg
Pressing	> 3 g/100 kg
Filtering	> 2 g/hl
Wines/musts affected by rot	> 3 g/hl

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

## Instructions for use

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- 1.- Dilute the dose of **Enozym Vintage** 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 stir thoroughly.

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

### Precautions.

- SO<sub>2</sub> and oenological tannin 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

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Cream-colored granulate.

## Presentation

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100g package.

## Microbiological and physico-chemical properties

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<i>Salmonella</i> [UFC/25g]	Absent
Total coliforms [UFC/g]	< 30
<i>E. coli</i> [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

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**Enozym Vintage** is obtained from specific cultures of the non-genetically modified (GMO-free) filamentous fungus *Aspergillus niger* and *Trichoderma spp.* on natural media. Enzymes are extracted with water, then purified, concentrated and standardised.

## Storage

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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.