

## Enovin PECTINASE

### **Broad-spectrum pectolytic enzyme concentrate**



# PG [IU/g] 400 300 300 200 100 PG PL PE [IUI/g] 40 0

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

IU: International Units.

Activity	/ [[[]/g]
ACTIVITY	/ [IU/g]

Polygalacturonase: PG	384,4
Pectin lyase: PL	6,7
Pectin methylesterase: PE	4,7

#### Characteristics

**Enovin Pectinase** is a broad-spectrum liquid enzymatic preparation for the treatment of musts and wines. Enovin Pectinase selectively hydrolyses the bonds between the pectic substances present in the middle lamella and wall of the grape-skin cells.

It reduces must and wine viscosity, and accelerates the settling of white and rosé musts and the clarification of wines. In red wines, it facilitates the disaggregation of the plant cell wall in preparation for extraction of the colouring material.

#### **Application**

- Settling: The addition of Enovin Pectinase accelerates clarification of the
  must by rapidly reducing its turbidity. It is effective at low temperatures
  and achieves high compaction of the solid fraction at the bottom of the
  vat.
- Maceration of red grapes: Enovin Pectinase accelerates colour extraction by solubilising the cell wall.
- It is highly recommendable in flash détente and thermovinification (hot pressing), markedly reducing viscosity after processing
- It facilitates the clarification and filtration of all wines, including press wines.

#### **Enzymatic activity**

**Enovin Pectinase** combines the various pectolytic activities: pectin lyase, polygalacturonase and pectinesterase.

**Enovin Pectinase** is a purified preparation that does not contain secondary activities.

Enovin Pectinase is free of cinnamyl esterase (FCE) activity

#### Dosing

<b>Settling:</b> White and rosé wines	> 2 ml/hl
Maceration Red wines (18–25°C; 64–77°F)	> 2 ml/100 kg
Flash détente (30–40°C; 86-104°F) 5-10 min	>8 ml/hl
Thermovinification (50–55°C; 122-131°F) 30-60 min	3-5 ml/hl
Clarification and filtration	4 ml/hl

PLEASE NOTE: The working dose should be optimised for grape quality and varietal, pressing conditions, temperature and action time.

#### Instructions for use

Add the solution to the entire volume of must or wine to be treated when filling the vat, and stir thoroughly.

If applying before pressing, dilute the preparation in 20 times its weight of water and add to the product to be treated.

Adding the preparation with a metering pump when removing the fruit from the crusher or from the press ensures uniform product distribution.

#### Precautions.

 SO<sub>2</sub> at the dosage generally used does not interfere with enzymatic activity. However, it should not be added together with the preparation.

#### Physical appearance

Caramel-coloured liquid.

#### Presentation

1 and 25-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 Pectinase** 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.

To maintain its properties for over one year or once open, maintain at a temperature of  $4\,^{\circ}\text{C}$ .

Prolonged exposure to temperatures above 35 °C will reduce its effectiveness.

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

Product compliant with International Oenological Codex and EC

Regulation No. 606/2009

