



ENDOZYM[®] Flotation

Pectinase based enzyme for fast degradation of pectins to facilitate flotation



→ TECHNICAL DESCRIPTION

The clarification of must using flotation systems like the one offered by AEB (E-Flot) is achieved through the incorporation of an inert gas into the solids that make up the turbidity of the liquid. The gas combines particles in suspension and makes them float towards the surface of the tank leaving a clear must at the bottom. To carry over this process successfully, it is important to first make sure that the must is thoroughly depectinized. **Endozym Flotation** is a fast acting liquid pectinase enzyme; it promotes the hydrolysis of the pectins and the separation of juice from the pomace, resulting in an increase of free-run juice yield and a juice that will be ready to flot in a reasonable time, preventing risks of early fermentation starts.

→ COMPOSITION AND TECHNICAL CHARACTERISTICS

Enzymatic activity	Activity/g
PL (U/g)	14,000
PE (U/g)	650
PG (U/g)	3,400
ARA (U/g)	110

The value is approximate and is not a specification.

PL (Pectinlyase): breaks down both the esterified and non-esterified pectins. This is a fundamental activity of the AEB enzymes, since it produces a very rapid clarification speed.

PE (Pectinesterase): it supports the PG in breaking down pectin.

PG (Polygalacturonase): breaks down only the non-esterified pectins. Its enzymatic activity works in synergy with the PL activity and performs a very important role in determining must clarity and wine filterability. The combination of PL and PG activities produces high quantities of free run juice in a very short period of time.

ARA (Rhamnosidase-Arabinosidase): they act synergically with PL and CTC and are responsible for the breaking down of very ramified pectins, not allowing a quick sedimentation.

Endozym Flotation is purified by the following activities:

CE (Cinnamyl Esterase): is an activity found in unpurified enzymes, which causes the formation of volatile phenols, compounds which lend unpleasant aromatic nuances to the wine, which, if present in high concentrations, are reminiscent of horse sweat.

Antocyanase: is a secondary enzymatic activity which causes a partial breakdown of the anthocyanins with a consequent increase of orange hues in the wines. AEB enzymes are obtained from *Aspergillus niger* strains, which do not produce antocyanase.





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→ DOSAGE

From 5 to 10 mL per ton.

Treatments at low temperature, musts with a high percentage of pectins and suspended solids, or low pH's, require the higher end of the dosage range or higher.

→ INSTRUCTIONS FOR USE

Dilute directly in 20-30 parts of non-sulfurized must or in demineralized water and add to must or directly onto the grapes. Precaution needs to be taken in order to avoid the enzyme coming into contact with high dosage levels of SO₂ or bentonite.

→ ADDITIONAL INFORMATION

INFLUENCE OF SO₂

Enzymes are resistant to SO₂ levels normally used in winemaking, however it is good practice not to put them in direct contact with sulfur solutions.

ACTIVITY CONTROL

There are various methods for evaluating enzymatic activity. A system utilized by AEB is a method of direct measure, directly linked to the concentration of the PL, PG and PE; the total of the three activities yields the Total UP per gram unity. The determination methods of pectolitic units together with the relative activity diagrams are made available to all technical personnel by AEB.

→ STORAGE AND PACKAGING

Keep **Endozym Flotation** in the original sealed packaging away from light, and in a cool, dry, odour-free place at a temperature below 20°C. Do not freeze. Observe the expiry date on the packaging. Use promptly after opening.

10 kg net drums.

25 kg net drums.

