



ENDOZYM[®] D-Pect

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 Pectolitic enzyme, suitable for must clarification



→ TECHNICAL DESCRIPTION

In order to make must clarification process quicker, AEB turned to the production of preparations with high Pectinlyasic (PL) activity, which are able to attack pectin chains from inside, quickly degrading them. (endo-pectinolytic activity)

Endozym D-Pect has significantly higher pectinliasic activity than that of normal commercial preparations and is suitable for the clarification of rapidly cooling musts.

The utilization of **Endozym D-Pect** makes it possible to significantly shorten settling times and increase must and must bloom yields.

Due to the strong decrease in must viscosity, clarification is optimized by obtaining compact lees. The combination of hydrolase, pectinlyase, polygalacturonase and secondary cleavage activities of the branched pectin zone, makes **Endozym D-Pect** suitable for the treatment of musts that are difficult to clarify, particularly damaged grapes.

Easy to use in its liquid form, it can be dosed automatically with Dosamatic.

→ COMPOSITION AND TECHNICAL CHARACTERISTICS

PL (Pectinlyase): breaks down both esterified and unesterified pectins. This is a key activity of the enzymes, since it allows for a very high clarification rate.

PG (Polygalacturonase): degrades only nonesterified pectins. It represents an enzyme activity that in synergy with PL activity is decisive for the degree of clarification of musts and the filterability of wine. The combination of PL and PG activities makes it possible to obtain high yields in must flower in extremely rapid.

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

CMC (Cellulase): is a complex of several enzymatic activities that in synergy with pectinase allows the release from the berry skin the coloring matter, tannins and aromatic precursors.

Betaglucosidase: a combination of 4 activities that allow the release of aromas from the glucose groups to which they are normally bound in high proportions.

The total measure of enzyme activity, which is indicated for each preparation, can be expressed as:

Total UP (U/g), which is the measure of enzyme activity resulting from the sum of PL, PG, PE activities measured individually.

Endozym D-Pect 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.

Anthocyanase: 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 anthocyanase.

PE (Pectinesterase): responsible for methanol release. AEB enzymes are low in PE activity and do not cause an increase in methyl alcohol.





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→ DOSAGE

2-4 mL for 100 kg of product to be treated.

The dosage indicated depends on the temperature of the must or the crushed grapes. Using higher doses, it is possible to correct the unfavourable influence of low temperatures.

→ INSTRUCTIONS FOR USE

Dilute directly in 20-30 parts of non sulphurized must or demineralized water or add directly into the grapes, crushed grapes or must. Use at the start or during the refilling of the tanks.

→ 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 pectolytic units together with the relative activity diagrams are made available to all technical personnel by AEB.

→ STORAGE AND PACKAGING

Keep **Endozym D-Pect** 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.

25 kg net drums.

