## ENDOZYM ${ }^{\circledR}$ ICS 10 Arôme

Concentrated pectolitic enzyme for the varietal characterization in the treatment of grapes and musts

## $\rightarrow$ TECHNICAL DESCRIPTION

In order to release terpenic substances and bouquet precursors, which normally remain for the most part trapped in the pomace, AEB studied and worked out enzymes with a high extraction and complementary $\beta$-glucosidasic activity.

This enzyme is in the super-concentrated liquid form, available in 100 g bottles. The liquid form enabled to obtain a higher concentration of the $\beta$-glucosidasic activities and an easier and quicker utilization of the preparation.
Endozym ICS 10 Arôme is above all suitable for the varietal aromatic characterization and furthermore displays exceptional clarifying characteristics in musts.

## $\rightarrow$ COMPOSITION AND TECHNICAL CHARACTERISTICS

| Enzymatic activity | Activity/g |
| :--- | :--- |
| PL (U/g) | 20,000 |
| PE (U/g) | 1,413 |
| PG (U/g) | 6,500 |
| CMC (U/g) | 400 |
| Total UP (U/g) | 27,913 |

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.
CMC (Cellulase): represents several enzymatic activities which in synergy with pectinase, release colouring matter, tannins and aromatic precursors from the grape skin.

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 ICS 10 Arôme 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.

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## $\rightarrow$ DOSAGE

$0,4 \mathrm{~mL}$ per hL or 100 Kg of the product to be treated.
The minimum recommended dosage varies according to the must or crushed grapes temperature. By using higher dosages, the unfavorable influence of low temperatures can be rectified.

## $\rightarrow$ INSTRUCTIONS FOR USE

Dilute directly in 20-30 parts of non sulphurized must or demineralized water or add directly onto 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 $\mathrm{SO}_{2}$ 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 ICS 10 Arôme in the original sealed packaging away from light, and in a cool, dry, odour-free place at a temperature below $20^{\circ} \mathrm{C}$. Do not freeze. Observe the expiry date on the packaging. Use promptly after opening.

100 g net blisters in 5 kg cartons.

