



ENDOZYM® ICS 10 Rouge

Pectolitic enzyme indicated for the extraction of colour and aromas from red grapes



→ TECHNICAL DESCRIPTION

Endozym ICS 10 Rouge is a complete enzymatic preparation combining the pectolitic activities with a high cellulosic and hemicellulosic action.

The utilization of **Endozym ICS 10 Rouge** enables to obtain the highest concentration of colouring matter, noble skin tannins and varietal aromas, enabling to reduce at the same time the intensity of pumping over or maceration times, one of the main reasons for the extraction of bitter tannins. The utilization of **Endozym ICS 10 Rouge** causes an increase in yields of free run juice up to 4% and reduces the produced quantity of pressed wines.

Endozym ICS 10 Rouge is available in a super-concentrated liquid form, easier to be used, automatically dosable.

→ COMPOSITION AND TECHNICAL CHARACTERISTICS

Enzymatic activity	Activity/g
PL (U/g)	29,000
PE (U/g)	2,040
PG (U/g)	5,433
CMC (U/g)	450
Total UP (U/g)	36,473

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 Rouge 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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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 anthocyanase.

→ DOSAGE

0,2-0,8 mL per hL or 100 kg of the 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 pectolitic units together with the relative activity diagrams are made available to all technical personnel by AEB.

→ STORAGE AND PACKAGING

Keep **Endozym ICS 10 Rouge** 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.

Packaging containing 10 x 100 g blisters.

