



# ENDOZYM<sup>®</sup> Contact Pelliculaire

Pectolitic enzyme suitable for colour extraction from red grapes



## → TECHNICAL DESCRIPTION

In order to obtain a better anthocyanin dissolution and a better tannin extraction from the skin, which contribute to the colour stabilization, AEB selected some enzymatic preparations with high hemicellulasic and cellulosic (CMC) activity.

This pool of enzymes facilitates colour extraction and enables to reduce maceration times or the intensity of pumping over, thus avoiding the extraction of bitter tannins. As they are purified from an anthocyanasic activity decolorating anthocyanins, AEB enzymes enable to obtain a higher concentration in anthocyanins, a higher colouring intensity and more lively colour nuances.

**Endozym Contact Pelliculaire** is a pectolitic enzyme with high hemicellulasic activity, obtained through the utilization of a strengthened culture medium.

It is particularly indicated to make degradation of skin cellules quicker, in order to obtain, in a shorter time, wines with a higher colouring intensity.

## → COMPOSITION AND TECHNICAL CHARACTERISTICS

Enzymatic activity	Activity/g
PL (U/g)	3,000
PE (U/g)	250
PG (U/g)	600
CMC (U/g)	125
Total UP (U/g)	3,850

*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.





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**Endozym Contact Pelliculaire** 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.

## → DOSAGE

2 g per hL or 100 kg of product to be treated.

The minimum recommended dosage varies according to the must or crushed grapes temperature. By using higher dosages, the unfavourable influence of low temperatures can be rectified.

## → 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 SO<sub>2</sub>

Enzymes are resistant to SO<sub>2</sub> 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 Contact Pelliculaire** 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.

500 g vacuum-sealed net cans.

