



ENDOZYM[®] Rouge Super

Pectolytic enzyme for rapid colour extraction



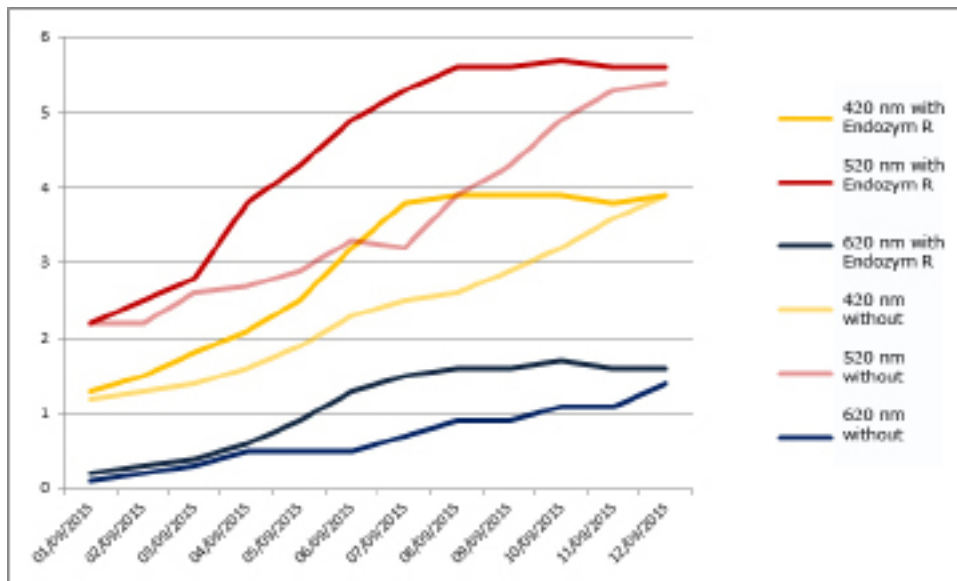
→ TECHNICAL DESCRIPTION

Endozym Rouge Super is used to quickly extract the colour from black grapes. Thanks to this property, the oenologist can choose the best time for the racking off without having to wait several days. Racking off quickly makes it possible to modulate the presence of endogenous tannins in the wine, which are often undesirable if the perfect phenolic ripeness has not been achieved.

Industrial tests have shown how the use of **Endozym Rouge Super** shortens the colour extraction times and reduces the overpump times, offering the following advantages:

- time saving;
- optimisation of winery equipment;
- less amount of lees.

Diagram showing colour extraction in Sangiovese 2015 Umbria wine



More velvety, smooth, fresh and fruity wines can be obtained with **Endozym Rouge Super**, thanks to the possibility of reducing interventions that bring oxygen to the must (overpumpings, delestages), by dosing to a minimum and depending on the fermentation and non-extraction requirements.

The analyses conducted showed how the wines added with **Endozym Rouge Super** had a better colour spectrum at the end of the alcoholic fermentation: the purplish hues are prevalent on the red ones due to the increased presence of pigments that absorb at a high frequency.

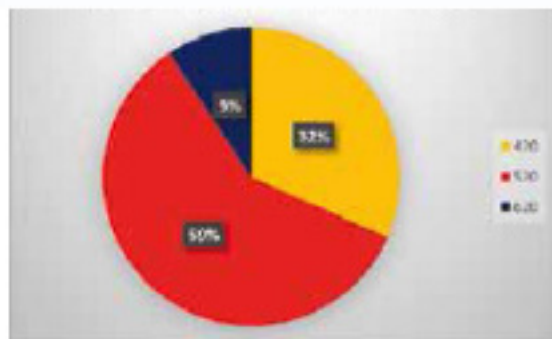
Reference: ENDOZYM_Rouge_Super_TDS_EN_1010317_OENO_USA



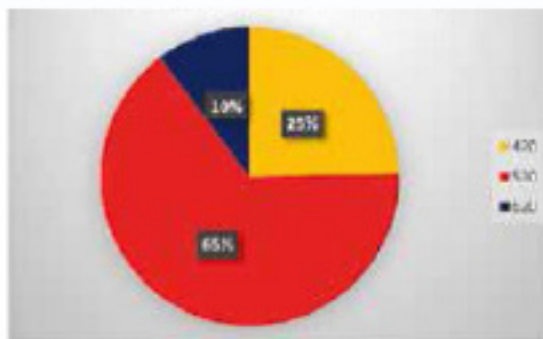


ENDOZYM[®] Rouge Super

Aglianic without Endozym Rouge Super



Aglianic with Endozym Rouge Super



Endozym Rouge Super must be used in the early stages of soft stamping, thus favouring an even distribution in the pressed grapes. This can be achieved by adding at different times of the filling of the fermentation casks or by using automatic dosing systems, such as the Dosaprop.

At the end of the addition, it is always recommended to perform a homogenisation overpumping to facilitate the diffusion of the enzyme and eliminate any fluid sacks that could remain inside the cap over time.

Endozym Rouge Super is ideal for use in combination with the tannins in the Fermotan line, considering the rapid extraction of colour and the need stabilise it.

→ COMPOSITION AND TECHNICAL CHARACTERISTICS

Enzymatic activity	Activity/g
PL (U/g)	9,500
PG (U/g)	380
PE (U/g)	370
Total UP (U/g)	10,250
CMC (U/g)	50

The value is approximate and is not a specification.

PL (Pectin lyase): degrades esterified/non-esterified pectins. It is a necessary activity of AEB enzymes, given that it enables very quick clarification.

PG (Polygalacturonase): only degrades non-esterified pectins. Represents enzyme activity which, in combination with PL activity, is crucial for the level of clearness in the musts and filtering ability of the wine. The combination of PL and PG activities makes it possible to obtain high yield from the first pressing very quickly.

PE (Pectinesterase): assists PG in the degradation of the pectin.

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[®] Rouge Super

Endozym Rouge Super 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.

→ DOSAGE

Between 1 and 5 mL/q of crushed grapes or per hL of must. Contact times depend on the temperature and SO₂, when exceeding normal operating doses.

→ INSTRUCTIONS FOR USE

Dilute directly in 20-30 parts of unsulphured must or demineralised water, or add to the grapes, crushed grapes or must directly. Use at the start of or during tank filling.

→ 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 Rouge Super** 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.

