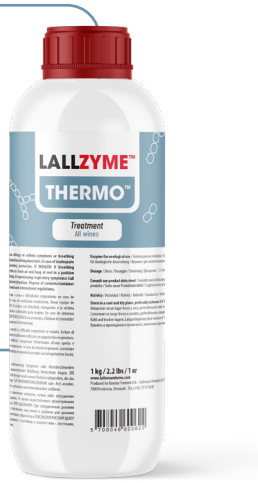
LALLZYME THERMO™

High performance pectolytic enzyme for thermo-treatments

DESCRIPTION



LALLZYME THERMO™ is a liquid enzyme preparation, obtained from *Aspergillus niger*, designed for thermo-treated grapes.

It contains special pectinases activities able to act at higher temperatures - up to 68°C (154°F) - compared to standard pectinases; it also contains specific macerating activities for more color and polyphenols extraction and complexity.

BENEFITS & RESULTS

The use of heat stable enzymes for thermo-treated grapes is necessary especially because the high temperatures reached during the process that inactivate the endogenous grape enzymes. Without enzyme activities, the winemaking process becomes much more difficult and less efficient, resulting in higher production costs and a lower wine quality.

Thermovinification and flash détente allow faster color and polyphenols extraction but often the color is highly unstable and the resulting wine thin and simple, especially if the skins are removed immediately after the heat treatment. The possibility to add LALLZYME THERMO™, immediately after the heat treatment, allows a better thermic grape treatment.

With LALLZYME THERMO™, the separation of the solid particles is easier by static settling, flotation, and centrifugation, resulting in higher yields, more compact lees and less use of adjuvants. Moreover, the side activities of the enzyme allow a stronger extraction of polyphenols, and better color stability.

A more complex polysaccharide structure of the wine is also observed with the use of LALLZYME THERMO™.

At the end of the winemaking process, filtration is easier and faster.

LALLZYME THERMO™ is also indicated during the treatment of the must with protease, associated with a heat treatment. In this particular application, it hydrolyses the pectins, thus optimizing and speeding up the winemaking process.

PROPERTIES

- Faster and easier winemaking process (settling, flotation, centrifugation, filtration).
- Higher quality of heat-treated red wines: more complexity, color stability and roundness.
- Depectinisation during protease treatment in must.

INSTRUCTIONS FOR OENOLOGICAL USE

Dosage: 1.5-3 ml/100 kg for red grapes thermo-treatment.
2.5-3 ml/hl for most protease treatment protocol.

• For red grapes thermo-treatment: add LALLZYME THERMO™ right after the heating treatment (at temperature below 68°C, 154°F); for best results, add the enzyme as soon as possible.

It's also possible to split the dosage in two additions: 1-2 ml/100 kg grapes at reception or after destemming, and 2 ml/100 kg right after the heating treatment.

• For most protease treatment: add the LALLZYME THERMO™ before the heating step for a better mixing, suspend the enzyme preparation in 10 times the volume with must.

The activity is between 10 and 68°C (50-154°F); the temperature influences the dosage of the enzyme and the treatment time.

NOTES

The enzyme activity is not affected by normal SO_2 additions.

Since LALLZYME THERMO™ is a protein, do not use bentonite during enzyme treatment.

A pectin test may be used to check for any residual pectin after treatment.

PACKAGING AND STORAGE

- 1 kg plastic bottles.
- Store LALLZYME THERMO™ in a cool and dry place, preferably between 4 and 8°C (39-46°F), in the original sealed packaging.

Distributed by:

LALLZYME THERMO™ is a Lallemand recipe, formulated based on the results of research and trials performed by Lallemand and its research institute partners, in compliance with the most complete current legislation.