

LAFASE® HE GRAND CRU

Pectolytic enzyme preparation, purified in CE and anthocyanase for the production of full bodied red wines that are rich in colouring matter and structured tannins, destined for ageing.

Qualified for the elaboration of products for direct human consumption in the field of the regulated use in Oenology. Natural non GMO and preservative free. In accordance with the regulation (EU) 2019/934 and the food chemical Codex and JECFA.

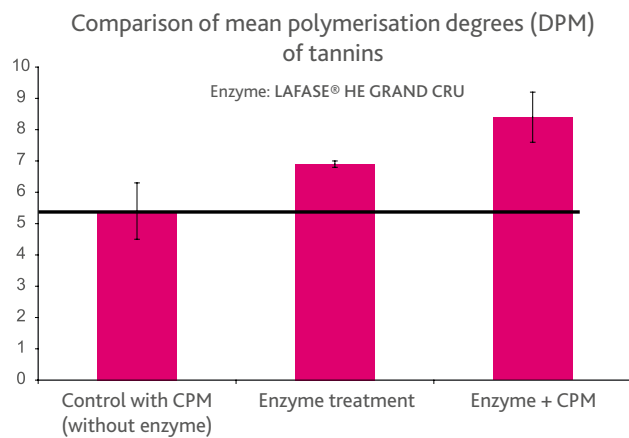
SPECIFICATIONS AND OENOLOGICAL APPLICATIONS

- LAFASE® HE GRAND CRU allows for strong selective extraction of Rhamnogalacturonan type II (components of the skin and pulp), favouring a better stability of colouring matter and the coating of tannins.
- Anthocyanase purification allows for a better stability of colour over time.
- The purification in CE limits the formation of ethyl phenol precursors during a potential *Brettanomyces* contamination.
- Favours wine clarification.
- For the production of structured red wines, rich in colour and polymerised tannins, with good mouthfeel.

EXPERIMENTAL RESULTS

- LAFASE® HE GRAND CRU allows for optimal extraction of phenolic compounds, particularly more highly polymerised tannins and anthocyanins, which have a higher stability over time.

CPM - cold pre-fermentation maceration



Analysis	Control with CPM No enzyme	LAFASE® HE GRAND CRU without CPM - Traditional maceration	LAFASE® HE GRAND CRU with CPM
Colour intensity (CI)	0.89	1.18 (+ 32%)	1.17 (+ 32%)
Total polyphenol index (OD 280 mm)	43	50 (+ 16%)	50 (+ 16%)
Turbidity (in NTU)	44.6	14.2	11.9
Polymerised phenols (mg/L)	433	614 (42%)	622 (43%)
Total anthocyanins (mg/L)	477	527 (+ 10%)	559 (+ 17%)
Polymerised anthocyanins (mg/L)	37	46 (+ 24%)	49 (+ 32%)
Monomeric anthocyanins (mg/L)	440	481 (+ 9%)	510 (+ 16%)



LAFFORT

L'œnologie par nature

PHYSICAL CHARACTERISTICS

Aspect granulates
Colour beige
Insoluble matter none

Standard activity
• Pectinase (PGNU/g) 8600
• Cinnamoyl Esterase (CINU/1000 PGNU) < 0.5

CHEMICAL AND MICROBIOLOGICAL ANALYSIS

Toxins and mycotoxins none
Total viable germs (CFU/g)..... < 5 x 10⁴
Coliforms (CFU/g)..... < 30
E.coli (/25 g) none
Salmonella (/25 g) none

Lead (ppm)..... < 5
Arsenic (ppm)..... < 3
Mercury (ppm)..... < 0.5
Cadmium (ppm) < 0.5

PROTOCOL FOR USE

OENOLOGICAL CONDITIONS

- LAFASE® HE GRAND CRU can be added at the crusher, including during cold pre-fermentation maceration.
- Bentonite: The enzymes are irreversibly inactivated by bentonite. Any bentonite treatment must always be carried out after the completion of enzyme activity or after the bentonite is eliminated.
- SO₂: Enzymes are not sensitive to normal doses of SO₂ (< 300 mg/L) but it is recommended not to put the enzymes and sulphurous solutions in direct contact.
- The preparations are generally active at temperatures from 5°C to 60°C (41 - 140°F) at a wine pH of 2.9 to 4.

DOSAGE

Adapt the dosage to the skin quality (thickness), phenolic maturity and the state of sanitation of the grapes.

- **Red:** 3 to 5 g/100 kg of grapes.
 - Under-ripe or thick skins: 4 to 5 g/100 kg of grapes.
 - Optimal maturity or thin skins: 3 to 4 g/100 kg
- **Infected grapes:** 5 g/100 kg (to be incorporated after fermentation has started).

IMPLEMENTATION

Dissolve LAFASE® HE GRAND CRU in 10 times its weight in water or must before incorporation. Once diluted, the chilled preparation can be used within the following 6 to 8 hours.

Safe practice: refer to the product safety sheet.

STORAGE RECOMMENDATION

- Store above ground level in a dry area not liable to impart odours. Ensuring stock is kept at a moderate temperature, in its original, unopened packaging.
- Optimal date of use: 4 years.

PACKAGING

100 g tin- 1 kg box (10 x 100 g) - 10 kg box (10 x 1 kg).
500 g tin - 5 kg box (10 x 500 g).
5 kg bags.

