

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. In accordance with the regulation (EC) n° 606/2009 and the food chemical Codex and JECFA.

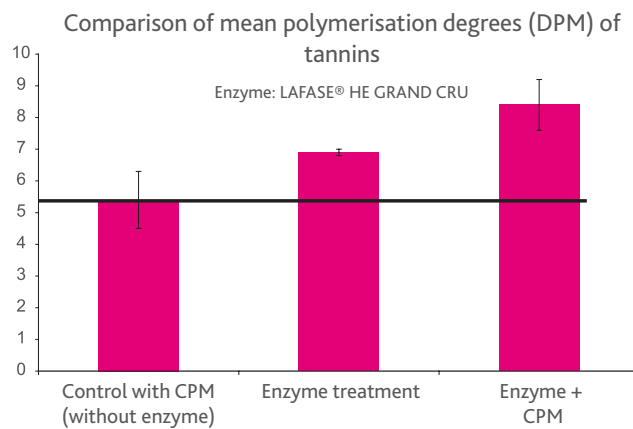
SPECIFICATIONS AND OENOLOGICAL APPLICATIONS

- **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 nm)	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/1000PGNU)*	< 0,5
*+/- 15% of the declared units of enzyme activity	

BIOLOGICAL & CHEMICAL ANALYSIS

Lead	< 5 ppm
Arsenic	< 3 ppm
Mercury	< 0.5 ppm
Cadmium.....	< 0.5 ppm
Toxins & mycotoxins	not detected

Total viable germs	< 5x10 ⁴ CFU/g
Coliforms	< 30 CFU/g
<i>E.coli</i> /25g	not detected
<i>Salmonella</i> /25 g	not detected

PROTOCOL FOR USE

ŒNOLOGICAL 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: **LAFASE® HE GRAND CRU** is not sensitive to normal SO₂ doses (<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 >4.0.

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

- Store in original sealed packages, in a cool dry place and in an odour-free environment.
- Optimal date of use: 4 years after packing.
- Open pack, well re-closed: 1 month after opening.

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): refer to the technical file on grapes infected by *Botrytis cinerea*.

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.

