MARTIN VIALATTE

CATALOGUE OENOLOGICAL PRODUCTS

2017-2018

For 95 years, we at Martin Vialatte have used our knowledge and expertise to meet the expectations and changing needs of winemakers with the help of a team of experienced oenologists.

Martin Vialatte accompanies winemakers with a clear idea of what oenology is all about: passing on techniques and methods that result from our experience and our awareness of the real needs of winemakers.

The driving force behind Martin Vialatte's work in advising winemakers and designing oenological products lies in our reliance on respecting food quality and safety (ISO22000), our expertise, our teams and the innovative research carried out by our Research and Development Department.

In partnership with research institutes in France and throughout the world, we seek to develop the innovations of tomorrow.

Since 1922, we at Martin Vialatte have been helping you to meet your goals, and this is our greatest source of pride.

1922 The Sofralab-Martin Vialatte company was set up by Messieurs Martin and Vialatte.

1925 Creation of a testing and research laboratory.

1964 Introduction of membrane filtration.
Study of tartrate stabilisation: Creation and production in our Parisian workshops of metatartaric acid index V40®.

1978 LACTA B - first casein bentonite compound for the vinification of white wines.

1982 Continuous tartrate stabilisation with the development of VINIPAL. Material for wine chilling, to guarantee tartrate stabilisation of white wines.

1983 Launch of the first Seyal and Verek gum arabic.

1985 GELISOL®: pioneer in the development of a specific range of fining agents (gelatin).



1989 Research into oenological tannins, creation of TANIXEL® chestnut tannins and of the VITANIL® range.

1995 Launch of the enzymology laboratory.

1990 2000 Development of ranges of yeasts in collaboration with French research institutes (IFV, SICAREX) in all the French terroirs, to ensure the continuing biodiversity of French grape varieties.

1996 Beginning of research into plant proteins. Pea proteins are selected by Martin Vialatte and are the first plant alternative in winemaking to fining agents of animal origin.

2004 Beginning of research into carboxymethylcellulose (CMC), cellulose derived from wood for tartrate stabilisation of white wines.

2005 Validation of plant proteins by the International Organisation of Vine and Wine (OIV) and by the European Union. Launch of the PROVGREEN® range, the first range of products based on pea proteins.

ProVgreen

2008 2012 Selection programme and launch of the VIALATTE FERM range, a new generation of yeast to celebrate the 90th anniversary of Martin Vialatte.

2009 Launch of the CRISTAB GC (CMC) range.



2010 The INTERVITIS prize awarded to Martin Vialatte's 'Allergen Free' products.

ALLERGEN FREE AF SANS ALLERGENE

2015 Launch of the KTS range.



To find out more
SEE OUR NEW WEBSITE
www.martinvialatte.com

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VIALATTE FERM® W12

S. cerevisiae galactose – selected for making white, rosé and red wines **VIALATTE FERM® W12** optimizes aromatic finesse and full-rounded flavor. **VIALATTE FERM® W12** is quickly autolyzed and is thus perfectly suited for ageing in tanks or barrels with stirring of lees. The qualitative potential and the varietal character of grapes grown and harvested under best conditions is thus preserved. **VIALATTE FERM® W12** is recommended for Chardonnay, Muscadet, Viognier vine varieties. **VIALATTE FERM® W12** is a robust yeast and is likewise recommended in the event of fermentation stops.

Packaging: 500 g

Application rate: 20 g/hL



VIALATTE FERM® W28

VIALATTE FERM® W28 is a *S. cerevisiae* yeast selected for the expression of thiols during vinification of grape varieties rich in aromatic precursors. In optimum conditions of phenolic maturity, it intensifies citrus and passion fruit notes, giving wines a very contemporary style. It has excellent fermentation capacity even under difficult conditions (low temperature, high alcohol levels, nitrogen deficiency, etc). **VIALATTE FERM® W28** is recommended for the vinification of grape varieties such as Sauvignon, Colombard, Verdejo and Petit Manseing, or for red grape varieties used in the production of aromatic rosé wines.

Packaging: 500 g and 10 kg

Application rate: 20 g/hL



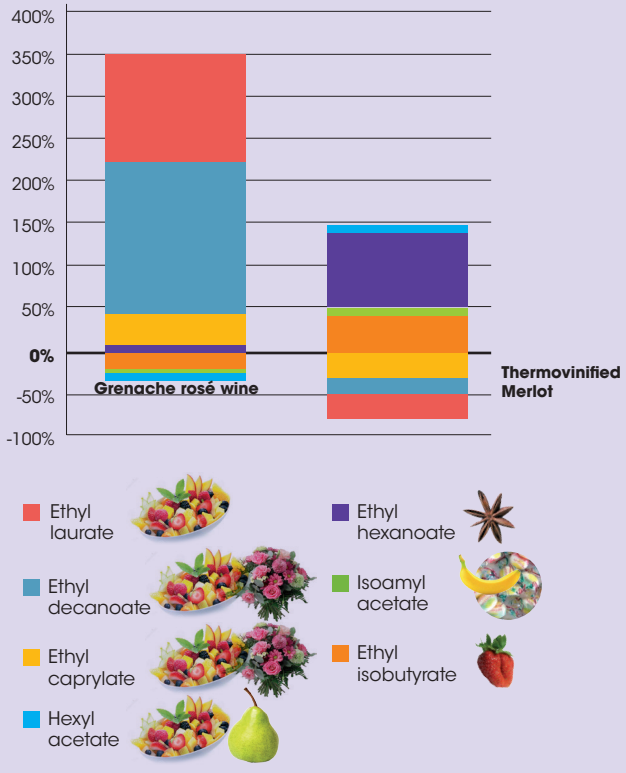
VIALATTE FERM® R71

VIALATTE FERM® R71 is a *S. cerevisiae* yeast selected for its capacity for producing intense red and rosé wines which are fresh and fermentative (small red berries, strawberries, red currants, etc). **VIALATTE FERM® R71** is very robust and allows alcoholic fermentative to be carried out under good conditions even with limiting factors (alcohol, low temperature, low turbidity …). This product can be used for traditional wine making or for thermovinification. **VIALATTE FERM® R71** is recommended for producing supple and fruity red and rosé wines with an international style.

Packaging: 500 g

Application rate: 20 g/hL

Variation in aroma concentration (Gas Chromatography SM-SPME) for VIALATTE FERM® R71 compared with yeast A



Trial Grenache rosé and Trial thermovinified Languedoc Roussillon Merlot:

VIALATTE FERM® R71 was compared to the same control yeast for rosé and red vinification. With Grenache rosé, **VIALATTE FERM® R71** produces 315% more aromas than yeast A. This especially concerns ethyl laurate, ethyl decanoate and ethyl caprylate, which have fruity and floral aromas. With thermovinified Merlot, **VIALATTE FERM® R71** produces 66% more aromas than yeast A. This especially concerns ethyl hexanoate, which has fruity and aniseed notes, and ethyl isobutyrate, which has a strawberry aroma.



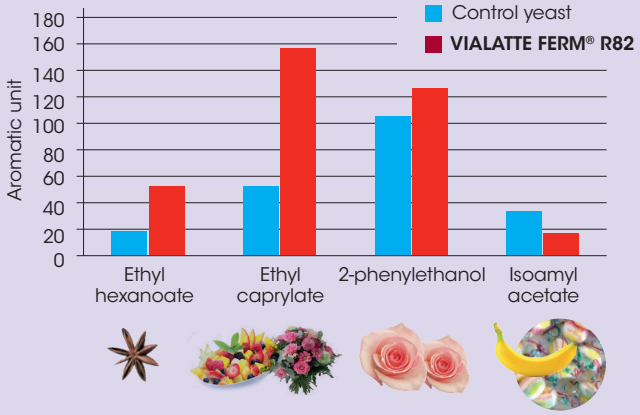
VIALATTE FERM® R82

VIALATTE FERM® R82 is a *S. cerevisiae* yeast selected for making wine with high maturity grapes and for making medium to long ageing red wines with a ripe fruit profile (red or dark berries). **VIALATTE FERM® R82** likewise limits the reduction of certain sensitive vine varieties such as Carignan or Syrah.

Packaging: 500 g

Application rate: 20 g/hL

Aroma analysis by Gas Chromatography SM-SPME related to perception threshold



Merlot Languedoc Roussillon - Traditional vinification:

VIALATTE FERM® R82 is compared to a classical category of yeast for the production of southern red wines. **VIALATTE FERM® R82** leads to higher production than the control yeast for 15 of the 17 aromatic compounds analysed. The differences are especially significant for ethyl hexanoate, ethyl caprylate and 2-phenylethanol, for which **VIALATTE FERM® R82** yields a much higher production. Isoamyl acetate, characteristic of early wines, is produced in large quantities by the control yeast. Tasting shows that wine vinified with **VIALATTE FERM® R82** is highly concentrated in the mouth, and its aromatic profile is complex, tending towards very ripe red fruits.



VIALATTE FERM® R100

VIALATTE FERM® R100 is a *S. cerevisiae* yeast selected for the production of smooth, fruity wines intended for short to average maturation. **VIALATTE FERM® R100** can be used for the production of intense, fruity, very fat wines thanks to a high production of glycerol. It is suitable for all types of grape variety.

Packaging: 500 g

Application rate: 20 g/hL



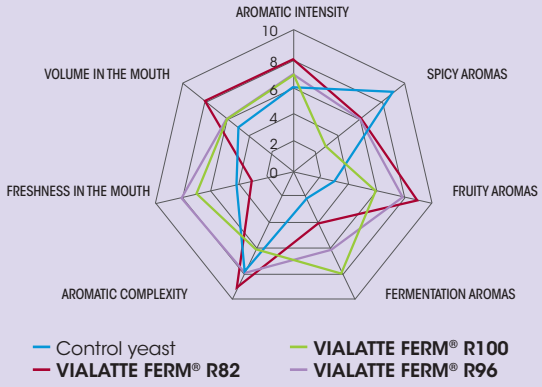
VIALATTE FERM® R96

VIALATTE FERM® R96 is a *S. cerevisiae* yeast particularly recognized for developing grape potential and for its versatility. **VIALATTE FERM® R96** adapts remarkably well to different vine varieties and different degrees of ripeness to make young or long ageing wines. The aromatic profile is orientated towards red and dark berry notes going toward spicy and balsamic notes (pepper, eucalyptus, licorice, etc). Wines produced are complex and have great aromatic freshness. **VIALATTE FERM® R96** is recommended for wine-making with Syrah, Merlot, Cabernet, Mourvèdre vine varieties.

Packaging: 500 g

Application rate: 20 g/hL

Impact of the yeast strain on the aromatic profile of a Syrah red wine



The aromatic impact of yeast strains on white or rosé vinification is well known. When it comes to producing red wines, things are somewhat trickier. This is because the sensory profile of a red wine depends just as much on the raw material as on the technical pathway: heat treatment or traditional maceration, duration of the maceration, fermentation temperature are all parameters that leave little room for a yeast footprint. However, the choice of a yeast in red wine vinification can also have an impact on a red wine's final profile. The **VIALATTE FERM®** range today provides the following choice:

- **For red grape varieties with a concentrated profile, VIALATTE FERM® R82** provides excellent tannin extraction and increases volume while preserving the harvest's potential during ageing.
- **For a red grape harvest from young vines, or in the event of a spoiled harvest,** where the goal is to produce a wine with a 'fresh red berry' profile, **VIALATTE FERM® R100** promotes fermentation aromas and provides freshness in the finish.
- **On healthy grapes with high alcoholic potential,** for the production of a specific cuvée for a particular grape variety, **VIALATTE FERM® R96** will produce a wine with high aromatic complexity on a base of Morello cherry-type fruit, with a fine roundness in the mouth while preserving freshness in the finish.



SO.DELIGHT

SO.DELIGHT is a *S. cerevisiae* yeast selected for its aptitude to produce aromatic white and rosé wines with a fresh and fruity style. The aromatic profile obtained is complex with varietal and fermentative notes. **SO.DELIGHT** is recommended for making wines derived from neutral or aromatic vine varieties.

Packaging: 500 g

Application rate: 20 g/hL



SO.FLAVOUR

SO.FLAVOUR is a *S. cerevisiae* yeast selected in the Côtes-du-Rhône in collaboration with the Domaine Saint-Apollinaire estate (a biodynamic wine estate). This yeast has very good development of fermentation with tolerance to high degrees of alcohol. Complex aromatic expression dominated by ripe fruits (red and dark fruit); the mouthfeel is rich and harmonious, characterized by a good balance between tannin and roundness. **SO.FLAVOUR** is recommended for making red modern, concentrated, complex and fruity wines made from great international dark vine varieties: Merlot, Cabernet-sauvignon, Syrah, Grenache, Tempranillo, Zinfandel etc.

Packaging: 500 g

Application rate: 20 g/hL



SO.FRUITY

SO.FRUITY is a *S. cerevisiae*, L1414 strain yeast, selected in Beaujolais by the IFV. This yeast has excellent fermentation action and is appropriate for short to medium duration wine-making. Wine expression is characterized by notes of small red berries. **SO.FRUITY** enables very good extraction of anthocyanins and tannins and thus produces colorful wines with a soft structure. **SO.FRUITY** is particularly recommended for Gamay in Beaujolais Villages and in Crus along with making supple and fruity wines from Merlot, Cabernet Sauvignon, Gamay, Pinot Noir amongst other vine varieties.

Packaging: 500 g

Application rate: 20 g/hL



SO.CLASSIC BY

For high maturity grapes or for resumption of fermentation.



SO.CLASSIC CE

To start fermentation quickly.



SO.SPIRIT

SO.SPIRIT is a *S.cerevisiae galactose* yeast, selected for the production of wines intended for distillation. Due to its fermentation characteristics and its organoleptic properties, **SO.SPIRIT** contributes to the production of high quality *eaux de vie*. In particular, it produces very few higher alcohols and very little ethyl acetate. **SO.SPIRIT** leads to the production of eaux de vie having a floral, fruity profile, with great finesse and excellent roundness.

Packaging: 500 g

Application rate: 20 g/hL

- Very good fermentative capabilites
- Aromatic and taste clarity
- Respects grape variety expression

Packaging: 500 g and 10 kg

Application rate: 20 g/hL

MARTIN VIALATTE PRODUCT RANGE

NAME	POSITIONING	GENUS SPECIES	RECOMMENDED FOR	AROMATIC EXPRESSION	FERMENTATION KINETICS	OPTIMUM TEMPERATURE	NITROGEN REQUIREMENT	RESISTANCE TO ALCOHOL	PRODUCTION OF SO_2 *	PRODUCTION OF VOLATIL ACIDITY	SENSITIVITY TO COPPER	H_2S PRODUCTION
VIALATTE FERM® W28		*S. cerevisiae*	Making aromatic white and rosé wines, optimising expression of thiols	Expression of thiols	Rapid	10 to 16°C	Low	16,50%	Low	Low	Highly sensitive	Low
VIALATTE FERM® W12		*S. cerevisiae galactose -*	Making fine and elegant wines in view of optimizing maturing on lees and valuing the qualitative potential of the grapes	Aromatic finesse - respects the typical nature of the vine variety	Medium if temp. < 16 °C	10 to 30°C	Low	15%	Low	Low	Mode-rately sensitive	Low
VIALATTE FERM® R71		*S. cerevisiae*	Making supple and fruity red and rosé wines with a fermentative profile	Production of fermentation aromas	Rapid	14 to 32°C	High	16%	Medium to Low	Low to Medium	Highly sensitive	Low
VIALATTE FERM® R96		*S. cerevisiae*	Making complex red wines with a fruit and spicy profile with great aromatic freshness	Expressing varietal aromas	Medium	15 to 28°C	High	16%	Medium to Low	Low	Mod-erately sensitive	NA
VIALATTE FERM® R82		*S. cerevisiae*	Making complex red wines with ripe red and dark berry aromas while avoiding the reduction of sensitive vine varieties	Production of fermentative aromas - expressing varietal aromas	Slow	18 to 30°C	Medium	16%	Medium to Low	Medium	Mod-erately sensitive	Very Low
VIALATTE FERM® R100		*S. cerevisiae*	Making international, clear, round, intense and fruity wines with a perfect control of the wine-making process	Production of fermentative aromas - expressing varietal aromas	Rapid	18 to 32°C	High	14%	Medium to Low	Medium	Not very sensitive	NA
SO.DELIGHT		*S. cerevisiae*	Making fresh and fruity aromatic white and rose wines while developing fermentation aromas along with thiol and terpene-type	Production of fermentative aromas - expressing varietal aromas	Very rapid	10 to 16°C	High	15%	Medium to Low	Medium	Sensible	Low
SO.FRUITY		*S. cerevisiae*	Making supple red wines with a fresh and fruity profile	Production of fermentation aromas - expression of varietal aromas	Rapid	18 to 32°c	Low	14%	Low	Low	Mode-rately sensitive	Low
SO.FLAVOUR		*S. cerevisiae*	Making concentrated red wines with a complex and fruity profile	Production of fermentation aromas - expression of varietal aromas	Medium	18 to 32°C	Medium	15%	Medium to Low	Medium	Not very sensitive	Low
SO.SPIRIT		*S. cerevisiae galactose -*	Making wine for distillation purposes	Neutral	Rapid	12 to 24°c	Medium	17%	Medium to Low	Low	NA	Low
SO.CLASSIC CE		*S. cerevisiae*	Secure alcoholic fermentation	Neutral	Medium	12 to 32°c	High	14%	Low	Low	NA	Low
SO.CLASSIC BY		*S. cerevisiae galactose -*	Secure alcoholic fermentation	Neutral	Rapid	13 to 32°c	Low	16%	Low	Low	NA	Low

For the production of white wine

For the production of rosé wine

For the production of red wine

For production of base wine intended for distillation

* : IFV data

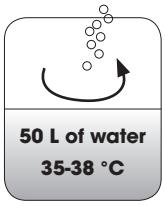
NA: not available

REINITIATING FERMENTATION PROTOCOL

(for 90 hL of wine with residual sugar)

- In the event of a fermentation stop, only yeast starters acclimatized to alcohol can be used to reinitiate alcoholic fermentation. The yeast starter must be applied as early on as possible after the fermentation stop to benefit from the AF temperature and to avoid setting off spontaneous malolactic fermentation. In the event of high level risk 1 g/hL of SO_2 or 25 g/hL of **BACTOLYSE LYZOZYME** can be added to the tank when fermentation has stopped to limit the development of indigenous lactic bacteria.
- The yeast selected must be robust, multiply well and have a good resistance to alcohol. The **VIALATTE FERM® W12** yeast, *Saccharomyces cerevisiae galactose -*, is an ideal LA yeast for reinitiating fermentation.
- At this stage, the medium is generally deprived of nutrients and may contain fermentation inhibitors produced by yeasts under stress conditions (notably short chain fatty acids).
- It is thus recommended to treat the tank when fermentation has stopped 24 hours before adding a yeast starter to detoxify the medium. To do so, add 40 g/hL of **YEAST CELL WALLS,** then rack before adding the yeast starter.
- In the same manner, to optimize the yeast starter, an addition of **NUTRICELL® INITIAL** at 30 g/hL is recommended to prepare the yeast. Then an addition of **NUTRICELL® START** from 20 to 40 g/hL is recommended during the starter culture, acclimitation and passing through the tank phase.

1. PREPARATION — 30 min



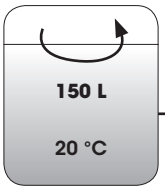
3 kg of **NUTRICELL® INITIAL** (30 g/hL)
+
2 kg of **VIALATTE FERM® W12** (20 to 30 g/hL)

Important : T < 40 °C



2. STARTER CULTURE — 24 h

It is imperative to not go under 1000 in density



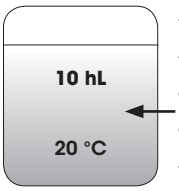
- 50 L of starter culture
- 50 L of wine
- 50 L of water
- 25 kg of sugar*
- 200 g of **NUTRICELL® START**



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3. ACCLIMATATION — 48 to 72 h

Important: ventilate 2 times a day

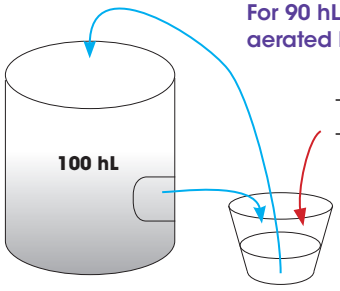


- 150 L starter culture
- 750 L of wine
- 100 L of water
- 10 kg of sugar
- 400 g of **NUTRICELL® START**



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4. PASSING THROUGH THE TANK



For 90 hL of wine treated with ECORCES DE LEVURES aerated by pumping over apply

- **10 hL** of yeast starter
- 4 kg of **NUTRICELL® START**



* Calculated for a wine with a potential alcohol strength of 14%, for a wine with an alcohol strength of 12% add 20 kg of sugar

5. CONTROLS

Every 2 days:

- Sugar contents
- Volatile acidity
- Yeast status

VITILEVURE® PRODUCT RANGE

Yeasts with personality at the service of controlled oenology

	POSITIONING	RECOMMENDED FOR	AROMATIC EXPRESSION	PACKAGING	FERMENTATION KINETICS	OPTIMUM TEMPERATURE	NITROGEN REQUIREMENT	RESISTANCE TO ALCOHOL	PRODUCTION OF SO_2	PRODUCTION OF VOLATILE ACIDITY
VITILEVURE DV 10®		Very resistant to alcohol and tolerant to low temperature yeast. For making Chardonnay-type still white wine and sparkling wine (base wine and bottle fermentation)	Neutral	100 g / 500 g / 10 kg	Fast	8-32°C	Low	17 %	Low	Low
VITILEVURE CHARDONNAY YSEO®		Develops complexity and aromatic finesse for Chardonnay based wines for ageing	Varietal aromas Esters (rose, citrus)	500 g	Normal	15-25°C	Medium	13,5 %	Low	Low
VITILEVURE MO5®		Enables increased aromas and finesse for white wines aged on lees	Varietal aromas	500 g	Normal	15-32°C	Medium	14 %	Low	Low
VITILEVURE SAUVIGNON®		Reveals the thiol-type varietal aromas of Sauvignon blanc	Thiols (4MMP, 3MH, A3MH) Terpenes	500 g	Normal	15-32°C	Medium	14 %	Low	Medium
VITILEVURE 58W3 YSEO®		For making Alsace-type aromatic white wines	Terpenes	500 g	Normal	15-25°C	Medium	13 %	Very Low	Medium
VITILEVURE ALBAFLOR YSEO®		To enhance neutral white vine varieties by revealing their aromatic potential	Fermentative aromas (floral, citrus, exotic fruit) Aromatic terpenes	500 g	Normal	15-25°C	Medium	13 %	Very Low	Low
VITILEVURE ELIXIR YSEO®		Provides aromatic intensity complexity and finesse for making white and rosé wines	Thiols (espcially 3MH and A3MH), terpenes, norisoprenoïds, fatty acid esters	500 g	Normal	14-25°C	Medium	15 %	Very Low	Low
VITILEVURE TONIC YSEO®		Reveals thiol-type varietal aromas and terpenes for white and rosé wines with intense, complex and refreshing crispness aromas great freshness wines	Thiols (especially 4MMP) Terpenes	500 g	Fast	15-18°C	Low	15 %	Medium	Low
VITILEVURE LB ROSÉ®		For making fruity and round rosé wines	Fermentative aromas (red berries - non amylic)	500 g	Fast	15-32°C	Low	14 %	Low	Low
VITILEVURE 3001 YSEO®		For the production of high-quality red wines that are complex, intense and harmonious: especially suitable for the cold pre-fermentation maceration process	Fermentative aromas (red berries - non amylic)	500 g	Normal	10-32°C	Heavy	15 %	N/A	Low
VITILEVURE CSM YSEO®		Specially selected for the production of elegant, fruity red wines for laying down, in particular those produced from the Cabernet franc, Cabernet sauvignon and Merlot varieties.	Fermentative aromas (red berries - non amylic)	500 g	Normal	15-32°C	Low to Medium	14 %	Low	Medium
VITILEVURE GY YSEO®		Particularly adapted to making fruity and intense primeur wines made from Gamay and Pinot noir (Sicarex Beaujolais) selection	Varietal aromas Esters (red berries)	500 g	Normal	15-32°C	Low	15 %	Low	Low
VITILEVURE SYRAH YSEO®		Expresses all the potential of Syrah on different terroirs for making red and rosé wines	C13 norisoprenoïds Esters (red berries)	500 g / 10 kg	Normal	15-32°C	Low *but care needs to be paid to clarified and vinified at low temperture rosé wines*	16 %	Medium	Low
VITILEVURE GRENACHE®		Reveals aromatic complexity of Grenache while respecting its typical nature	Varietal fruit and spicy aromas	500 g	Normal	15-32°C	Moyen	16 %	Very Low	Low
VITILEVURE M83®		For the fruity varietal aromatic expression and roundness of southern style red wines	Varietal aromas	500 g	Fast	15-32°C	Fort	15 %	Very low to absence of nil	Low
VITILEVURE AZUR YSEO®		Very resistant to alcohol for making round, powerful and balanced wines	Varietal aromas	500 g	Fast	18-30°C	Faible	17 %	Low	Low

For the production of white wine

For the production of rosé wine

For the production of red wine

Recommended for making sparkling wine

	POSITIONING	RECOMMENDED FOR	AROMATIC EXPRESSION	PACKAGING	FERMENTATION KINETICS	OPTIMUM TEMPERATURE	NITROGEN REQUIREMENT	RESISTANCE TO ALCOHOL	PRODUCTION OF SO_2	PRODUCTION OF VOLATILE ACIDITY
VITILEVURE MT YSEO®		Perfectly adapted to making great long ageing wines made from Merlot and Cabernet Sauvignon varieties	Varietal aromas (furaneol, norisoprenoïds)	500 g / 10 kg	Normal	15-32°C	Medium	15 %	Absence of nil	Low
VITILEVURE LB ROUGE®		Suitable for alcoholic fermentation of musts derived from thermovinification, enhances aromatic potential for the production of fruity, round wines	Fermentative aromas (red berries - non amylic)	500 g / 10 kg	Normal	15-32°C	Medium	14 %	Low	Low
VITILEVURE B+C®		Association of yeasts for fast start ups and guaranteed end of fermentation	Neutral	500 g / 10 kg	Normal	15-32°C	Medium	15 %	Very Low	Low
VITILEVURE KD®		Resistant to low temperatures, for wine with strong characteristic aromas	Esters Thiols (4MMP)	500 g	Fast	5-37°C	Medium	15 %	Very Low	Medium
VITILEVURE MULTIFLOR®		Provides aromatic expression and fermentation security for white or southern-type rosé wines, even under difficult conditions	Esters (red berries)	500 g	Normal	15-32°C	Low	15 %	Very Low	Low
VITILEVURE QUARTZ®		Very resistant fructophile yeast resistant to alcohol for making Chardonnay-type still white wines and sparkling wines (base wine and bottle fermentation)	Neutral	500 g	Normal	10-32°C	Low	17 %	Low	Low
VITILEVURE EC 1118®		For fermentation security and secondary fermentation	Neutral	500 g	Fast	4-28°C	Low	N/A	Medium	Medium

 **Recommended for making white win**

 **Recommended for making rosé wine**

 **Recommended for making red wine**

 **Recommended for making sparkling wine**

 **For production of base wine intended for distillation**

Fermentation kinetics: Slow - Normal - Fast
Nitrogen requirement: Low - Medium - Heavy
Production of SO_2: Absence - Very low - Low - Medium
Production of volatile acidity: Low - Medium - Fort
N/A: data not available
N.B. : These different parameters are measured based on an identical synthetic musts. This involves a gelose-based artificial nutrient medium simulating an easily fermentable grape must (required nutrients, adjusted pH level, etc.)

ADDITION OF NUTRIENTS DURING AF

MUST

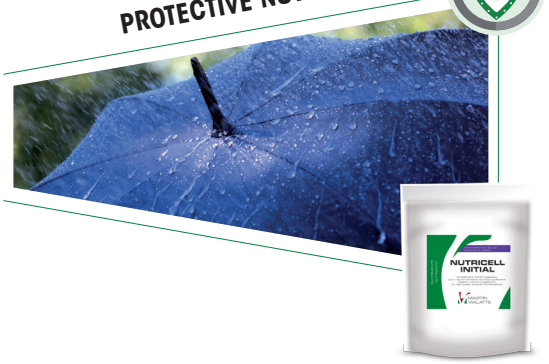
DEVELOPER NUTRIENT



NUTRICELL® AA

NUTRICELL® FULLAROM

PROTECTIVE NUTRIENT



NUTRICELL® INITIAL

Preparation of yeast

STARTER NUTRIENT



NUTRICELL® FLOT

Beginning AF 1/3 of AF

FINISHER NUTRIENT



NUTRICELL®

NUTRICELL® MIDFERM

NUTRICELL® FINISH

Half-way through AF if sluggish

WINE

CHOOSE GOOD NUTRITION* ACCORDING TO THE YEAST AND MUST NITROGEN DEFICIENCY

WHITE AND ROSÉ WINES









	Aromatic Category	Esters / Thiols	Finesse / Elegance	Thiols	Esters / Rosés
CHARACTERISTICS OF MUST / QUANTITY OF NITROGEN	Moment of nitrogen supply / Nitrogen requirements	High	Low	Low	High
LOW AVAILABLE N DEFICIENCY 140 -180 mg/L	preparation of yeast	NUTRICELL® AA NUTRICELL® FULLAROM		NUTRICELL® AA	NUTRICELL® FULLAROM
	beginning AF - 1/3 of AF	NUTRICELL® START			NUTRICELL® START
	from mid-AF				
AVERAGE AVAILABLE N DEFICIENCY 80 - 140 mg/L	preparation of yeast	NUTRICELL® AA NUTRICELL® FULLAROM	NUTRICELL® INITIAL	NUTRICELL® AA	NUTRICELL® FULLAROM
	beginning AF - 1/3 of AF	NUTRICELL® START			NUTRICELL® START
	from mid-AF	NUTRICELL® FINISH			NUTRICELL® FINISH
MAJOR AVAILABLE N DEFICIENCY < 80 mg/L	preparation of yeast	NUTRICELL® AA NUTRICELL® FULLAROM	NUTRICELL® INITIAL	NUTRICELL® AA	NUTRICELL® INITIAL
	beginning AF - 1/3 of AF	NUTRICELL® START	NUTRICELL® START	NUTRICELL® START	NUTRICELL® START
	from mid-AF	NUTRICELL® MIDFERM			NUTRICELL® MIDFERM

*For an addition of 20 g/hL of nutrients

- **NUTRICELL® AA** should systematically be used during yeast inoculation in the event of a deficiency if a thiol profile is desired, so as not to inhibit the expression of aromatic precursors.
- If fermentation aromas are required, **NUTRICELL® FULLAROM** is strongly recommended during yeast inoculation in order to increase the production of aromas when conditions are not too restrictive.
- Under more difficult conditions, **NUTRICELL® AA** and **NUTRICELL® FULLAROM** may be replaced by **NUTRICELL® INITIAL** in order to increase protection of yeasts, thanks to the supply of survival factors.
- In the event of major deficiency, it is advisable to increase the average recommended dose of **NUTRICELL® START** in order to provide the yeast with a sufficient concentration of available nitrogen.









PROTECTIVE NUTRIENT



NUTRICELL® INITIAL

NUTRICELL® INITIAL is a nutrient rich in amino acids, vitamins, minerals and more particularly in survival factors. It is recommended for optimizing yeast performance under difficult conditions. **NUTRICELL® INITIAL** improves fermentations and the organoleptic qualities of wine by limiting negative compounds such as volatile acidity and H_2S.

Packaging: 1 kg and 10 kg

Application rate: 20 to 40 g/hL

DEVELOPER NUTRIENT



NUTRICELL® AA

NUTRICELL® AA is a nutrient made up exclusively from specific yeast derivatives rich in amino acids. **NUTRICELL® AA** enables good alcoholic fermentation management and optimizes the aromatic profile of wine by promoting the production of superior esters and superior alcohol acetates (derived from breakdown of amino acids) along with revealing thiols during alcoholic fermentation.

Packaging: 1 kg and 10 kg

Application rate: 20 to 40 g/hL



NUTRICELL® FULLAROM

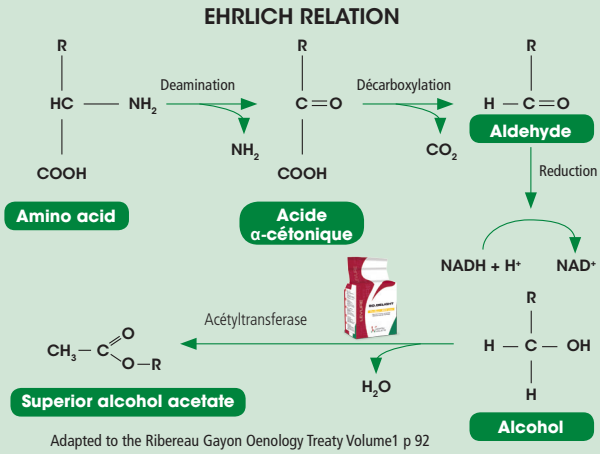
NUTRICELL® FULLAROM is a nutrient formulated on the basis of specific yeast derivatives selected for their impact on wine aromas. **NUTRICELL® FULLAROM** provides excellent control of alcoholic fermentation and improves the production of fermentation esters during the vinification of grape varieties that are poor in aromatic precursors or of diluted material from highly productive plots.

Packaging: 1 kg and 10 kg

Application rate: 20 to 40 g/hL

NUTRICELL® AA : IMPACT ON ESTERS

- During alcoholic fermentation, yeast produces esters with fruit and flower odors.
- These esters are produced from superior quality alcohols which are produced from amino acids (Ehrlich reaction).



Adapted to the Ribereau Gayon Oenology Treaty Volume1 p 92

- **NUTRICELL® AA** and **NUTRICELL® FULLAROM** provide amino acid precursors from superior alcohol to the must. Choosing a yeast with acetyltransferase activity enables superior alcohol to be transformed into superior alcohol acetates with pleasant fruit and flower odors.
- This is the ideal combination for optimizing the production of wine fermentation esters.

For white and rosé wines:



SO.DELIGHT

+



NUTRICELL® FULLAROM

For red and rosé wines:



VIALATTE FERM® R71

+



NUTRICELL® AA

STARTER NUTRIENT



NUTRICELL® START

NUTRICELL® START is a complex nutrient, without sulphates, recommended for activating alcoholic fermentation. Added to yeasting, it provides the elements necessary for ensuring complete yeast nutrition: vitamins (thiamine), minerals, mineral and nitrogen, survival factors.

Packaging: 1 kg and 10 kg

Application rate: 20 to 60 g/hL



NEW

NUTRICELL® FLOT

NUTRICELL® FLOT is a complex nutrient, without a source of mineral nitrogen, specifically formulated for flotation of white and rosé musts, for optimum initiation of alcoholic fermentation. Added during racking of the tank, before yeast inoculation, **NUTRICELL® FLOT** guarantees good yeast growth at the start of AF and offsets deficiencies in solid matter in musts that are too clear at the end of flotation (turbidity < 50 NTU).

Packaging: 1 kg and 10 kg

Application rate: 20 to 60 g/hL

FINISHER NUTRIENT



NUTRICELL®

NUTRICELL® is a complex nutrient containing the necessary nutrients for alcoholic fermentation, including thiamine, mineral nitrogen and inactive yeasts. Added to yeasting or during AF, it efficiently activates the start of AF and prevents sluggish fermentations under difficult conditions.

Packaging: 1 kg and 10 kg

Application rate: 20 to 60 g/hL



NUTRICELL® MIDFERM

NUTRICELL® MIDFERM is a complex sulfate-free nutrient, whose use is recommended during AF to prevent or reactivate sluggish fermentation. It releases into the medium mineral and organic nitrogen to boost yeast metabolism, and yeast cell envelopes to eliminate possible inhibitors.

Packaging: 1 kg and 10 kg

Application rate: 20 to 60 g/hL



NUTRICELL® FINISH

NUTRICELL® FINISH is a nutrient formulated on the basis of yeast autolysates and hulls. This nutrient is recommended for application during AF to prevent stuck fermentation. It detoxifies the medium and releases organic nitrogen in the form of amino acids to reactivate alcoholic fermentation.

Packaging: 1 kg and 10 kg

Application rate: 20 to 40 g/hL

SPECIFIC NUTRIENT



NUTRICELL® FML

NUTRICELL® FML is an nutrient based on yeast derivative rich in amino acids and survival factors. **NUTRICELL® FML** provides quality nutrition to lactic bacteria, reduces the latency time after inoculation of bacteria and accelerates MLF.

Packaging: 1 kg and 5 kg

Application rate: 20 to 30 g/hL



NUTRICELL® SB

NUTRICELL® SB is a complex nutrient specially formulated for producers of organic wines. It contains vitamins, nitrogen and survival factors, and helps yeasts to perform alcoholic fermentation. It can be added during yeast inoculation to accelerate initiation of fermentation, or during AF to guarantee a successful end to fermentation.

Packaging: 1 kg

Application rate: 20 to 40 g/hL

NUTRICELL® RANGE

NAME	CATEGORY	AVAILABLE NITROGEN for an addition of 20 g/hL: AVAILABLE ORGANIC N	AVAILABLE MINERAL N	TOTAL AVAILABLE N	AVAILABLE NITROGEN	THIAMINE	SURVIVAL FACTOR	GROWTH SUBSTRATE
			PROTECTIVE NUTRIENT					
NUTRICELL® INITIAL	Organic nutrient for qualitative, controlled management of AF	7 mg/L		7 mg/L				
			DEVELOPER NUTRIENT					
NUTRICELL® AA	Organic nutrient for optimisation of aroma production during AF	8 mg/L		8 mg/L				
NUTRICELL® FULLAROM	Organic nutrient for significant production of aromas during AF with neutral grape varieties or diluted material	8 mg/L		8 mg/L				
			STARTER NUTRIENT					
NUTRICELL® START	Complex nutrient for AF activation	2,5 mg/L	23 mg/L (without sulfate)	25,5 mg/L				
NUTRICELL® FLOT	Specific nutrient for flotation	3,3 mg/L		3,3 mg/L				
			FINISHER NUTRIENT					
NUTRICELL®	Complex nutrient for AF activation	1,5 mg/L	26 mg/L	27,5 mg/L				
NUTRICELL® MIDFERM	Complex nutrient for good control of end AF	2 mg/L	21 mg/L (without sulfate)	23 mg/L				
NUTRICELL® FINISH	Complex nutrient for perfect control of end AF	6 mg/L		6 mg/L				
			SPECIFIC NUTRIENT					
NUTRICELL® FML	Organic nutrient for the activation of MLF	ND		ND				
NUTRICELL® SB	Complex nutrient specially for organic wines		25 mg/L (without sulfate)	25 mg/L				

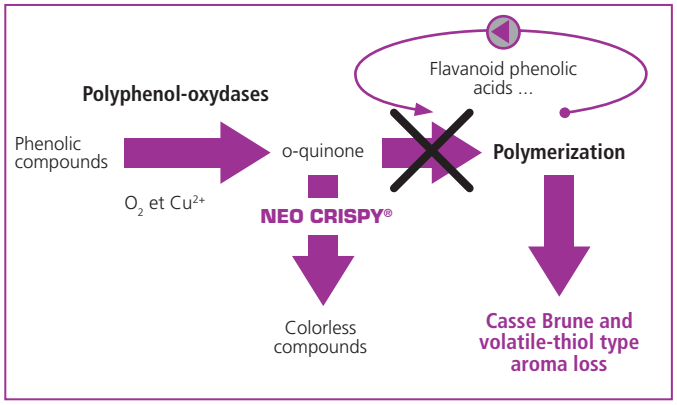
NAME	CATEGORY	AVAILABLE NITROGEN for an addition of 20 g/hL						
		AVAILABLE ORGANIC N	AVAILABLE MINERAL N	TOTAL AVAILABLE N	AVAILABLE NITROGEN	THIAMINE	SURVIVAL FACTOR	GROWTH SUBSTRATE
THIAMINE	Growth factor for yeasts					●●●		
AMMONIUM SULFATE	Mineral nitrogen - growth factor for yeasts		42 mg/L	42 mg/L	●●●			
DIAMMONIUM PHOSPHATE	Mineral nitrogen - growth factor for yeasts		42 mg/L	42 mg/L	●●●			
VITIAMINE	Nutrient for AF activation		42 mg/L (without sulfate)	42 mg/L	●●●	●		
VITIAMINE 2	Nutrient for AF activation		42 mg/L	42 mg/L	●●●	●		
ECORCES DE LEVURES	Detoxification agent to optimise fermentation						●●●	
PREFERM®	bio-activator of oenological yeasts	ND		ND	●		●●	●
ACTIFERM OR	Organic nutrient for the complete and regular nutrition of yeasts	8 mg/L		8 mg/L	●		●	
ACTIFERM	Complete nutrient for AF	1,5 mg/L	26 mg/L	27,5 mg/L	●●	●	◢	●●
ACTIFERM 1	Nutrition kit - promotes initiation of AF	1 mg/L	28 mg/L	29 mg/L	●●	●	◢	●●
ACTIFERM 2	Nutrition kit - Better control of end of AF	2 mg/L	28 mg/L	30 mg/L	●●		◢	●
ACTIFERM MVR	AF-regulating nutrient	3 mg/L	21 mg/L	24 mg/L	●●		●	
ACTIFERM MFC	Nutrient for AF of highly clarified musts with low nitrogen deficiency	2,5 mg/L		2,5 mg/L	●		●	●●
MALOVIT®	Nutrient for bacteria to optimise MLF	ND		ND	●		●	●
MALOVIT® B	Nutrient for bacteria for MLF in difficult white wines	ND		ND	●		●	●

ND: not determined

NEO AND OPEN RANGE

Yeast products to protect the aromatic potential of your wines

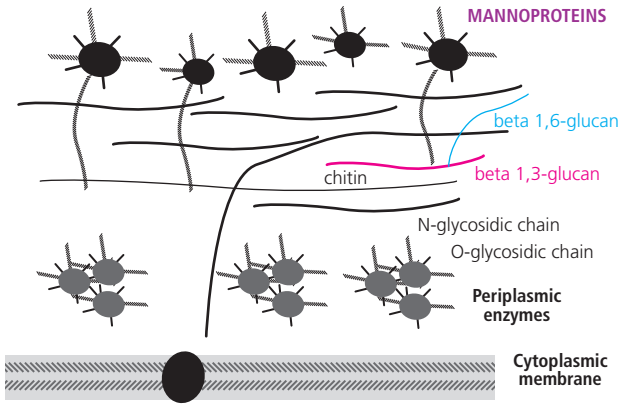
Yeasts are essential for the production of wines. First of all, they bring about alcoholic fermentation, and then autolyse during maturation, enriching wines in desirable compounds and protecting them from oxidation. Martin Vialatte has taken inspiration from nature, and has developed a range of yeast products specifically formulated to help winemakers to produce wines of constant quality, despite vintages that may vary considerably due to a lack of maturity and/or deficient sanitary conditions. For instance, in spoiled harvests, the musts obtained are especially sensitive to oxidation and readily bind SO_2. Without preventive or regulatory action, the phenolic compounds are oxidised to ortho-quinones. These compounds react with the phenolic acids and the flavonoids present in the wine, forming increasingly large complexes that eventually precipitate out, taking with them the aromatic compounds.



Martin Vialatte has developed **NEO CRISPY®**, a yeast product naturally rich in reducing compounds that enables wines to resist oxidation and preserve the wine's aromas. By using **NEO CRISPY®** on must just before yeast inoculation, winemakers can prevent oxidative change in their wines. In particular, it permanently blocks reactions with ortho-quinones by forming insoluble, colourless compounds. The phenolic and aromatic compounds in the wine are totally preserved, which maintains the overall quality of the wine.
For vintages lacking maturity, winemakers have to limit the harvest contact time during the alcoholic fermentation phase so as to limit the extraction of bitter polyphenols. The wines obtained are often dilute and lack volume. In this case, winemakers can use **NEO SWEET®** in order to mimic the effect of maturation on lees.

NEO SWEET® is composed of inactive yeasts that are very rich in polysaccharides, which interact with the most reactive tannins in the wine, reducing astringency while providing volume and fatness. **NEO SWEET®** has a very rapid effect: 10 days after being added, there is a significant decrease in the wine's astringency, and an increase in volume. Not only does **NEO SWEET®** rectify ripening defects, but it also makes it possible to very rapidly obtain a wine with the profile of a wine matured on lees (more complexity, volume and fatness).

Finally, before bottling, winemakers should check their wine's colloidal stability (risk of tartaric, protein or colour precipitation, etc). Winemakers have long observed that wines matured on lees had much greater colloidal stability than racked wines kept in a vat. Since then, scientific studies have shown that the mannoproteins that make up yeast cell walls have these properties. Martin Vialatte has developed **OPEN PURE** and **OPEN PURE FRAÎCHEUR** products composed of purified yeast mannoproteins that can be used to improve the colloidal stability of wines. **OPEN PURE** can be used for final rectification of wines before bottling by significantly reducing bitterness and providing sweetness. **OPEN PURE FRAÎCHEUR** provides roundness and helps to enhance the aromatic freshness of wines. The mannoproteins that make up **OPEN PURE** and **OPEN PURE FRAÎCHEUR** are extracted from yeast hulls. What makes these products special is the purification and concentration process used, which makes it possible to recover non-denatured native mannoproteins. **OPEN PURE** and **OPEN PURE FRAÎCHEUR** are totally soluble and can therefore be used just before bottling.



Cross-section of a yeast cell wall showing the cytoplasmic membrane that separates the interior of the yeast from its exterior wall

AMPLI RANGE

	NAME OF YEAST PRODUCT	CHARACTERISTICS	DOSAGE	PACKAGING
AMPLI RANGE	AMPLITAN VR	Structures and improves the roundness of tannins derived from non-optimum maturity harvests	30 to 40 g/hL	1 kg
	AMPLI SWEET	Reinforces aromatic perception while providing volume and fullness to wines	10 to 40 g/hL	1 kg
	AMPLI FRUIT	Reinforces resistance to the oxidation of wines while providing the wine with freshness and roundness	5 to 15 g/hL	1 Kg



NEO CRISPY®

Rich in amino acids and reductive peptides, **NEO CRISPY®** is a yeast product used for making aromatic white and rosé wines. Used early on at the beginning of the wine-making process, **NEO CRISPY®** is remarkably effective in protecting the aromatic and color compounds of wine. **NEO CRISPY®** reinforces the natural resistance of musts from oxidation.

Packaging: 1 kg and 5 kg

Application rate: 15 to 30 g/hL



NEW

NEO$_2$® XC

NEO$_2$® XC is a combination of polysaccharides of yeast and plant origin for the management of redox equilibria during wine production. **NEO$_2$® XC** is especially recommended for the production of red wines aged with wood alternatives in a dynamic system designed to emphasize volume and suppleness and protect colour.

Packaging: 1 kg and 5 kg

Application rate: 20 to 40 g/hL



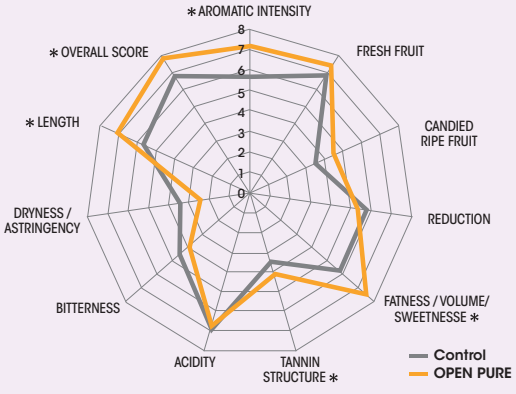
OPEN PURE

OPEN PURE is a preparation made up of purified mannoproteins from *Saccharomyces cerevisiae* yeast. **OPEN PURE** has an organoleptic effect by reducing the astringency of tannins and increasing aromatic persistence and volume in the mouth. **OPEN PURE** is totally soluble and can therefore be used just before bottling. However, it is necessary to carry out a few trial runs in order to determine the optimum dosage.

Packaging: 250 g

Application rate: 0,5 to 5 g/L

SENSORY ANALYSIS - CHARDONNAY WHITE WINE



∗ *significant difference with analysis of variance*

OPEN PURE enhances volume and length in the mouth as well as aromatic intensity, without altering the profile.



NEO SWEET®

NEO SWEET® is a yeast product rich in parietal polysaccharides used for making light or concentrated red wines. Due to its strong reactivity with polyphenols, **NEO SWEET®** substantially reduces the perception of astringency and develops sensations of roundness and fullness sought be consumers. **NEO SWEET®** is used at the beginning of the wine-making process or later on at the end of maturing.

Packaging: 1 kg and 5 kg

Application rate: 15 to 30 g/hL



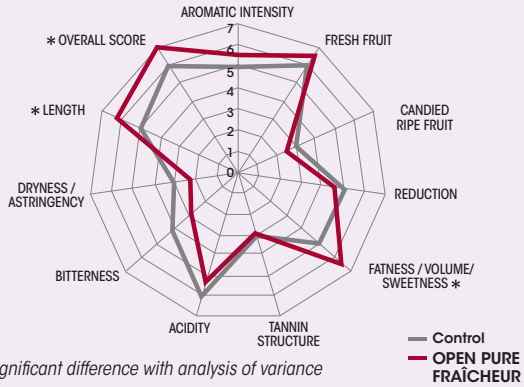
OPEN PURE FRAÎCHEUR

OPEN PURE FRAÎCHEUR is a complex containing specific cell-wall polysaccharides from *Saccharomyces cerevisiae* yeast and plant polysaccharides (E414). **OPEN PURE FRAÎCHEUR** provides roundness and helps to increase the wine's aromatic freshness. With young wines, **OPEN PURE FRAÎCHEUR** can be used to provide volume in the mouth while strengthening the aromatic potential and varietal character of the wine. With wines that are sensitive to oxidative change, **OPEN PURE FRAÎCHEUR** provides roundness and aromatic freshness. **OPEN PURE FRAÎCHEUR** is totally soluble and can therefore be used just before bottling.

Packaging: 250 g

Application rate: 0,5 to 20 g/hL

SENSORY ANALYSIS - CHARDONNAY WHITE WINE



∗ *significant difference with analysis of variance*

OPEN PURE FRAÎCHEUR enhances aromatic intensity and shifts the profile to fresher aromas. It also enhances roundness and length in the mouth and reduces negative sensations of bitterness and astringency.

A TECHNOLOGICAL COMBINATION FOR RAPID, CONTROLLED AGEING OF YOUR WINES

NEO_2 XC

- Limits the oxidizing effects of air input and micro-oxygenation.
- Enhances the sensory perception and incorporation of wood.
- Increases the sensation of volume and smoothness.

DYNAMIC INFUSER

- Optimisation of wood alternatives.
- Time gained in extracting woody compounds.
- Management of oxygen input.
- Totally automatic cycles.
- Automatic mixing and pump-over.



EXAMPLE OF A TRIAL CARRIED OUT ON MERLOT 2015 - LANGUEDOC-ROUSSILLON PGI FRANCE

WINERY OBJECTIVE

Manage the production of a red wine (Merlot 2015) with wood alternatives and the use of micro-oxygenation.

Equipment: Dynamic Infuser.
The dynamic infuser was invented by Martin Vialatte to manage wood extraction and oxygenation of wines during ageing.
Type of toast for the trial: CHIPS INTENSITY (High toast).
Dosage: 5 g/L of CHIPS INTENSITY + addition of 20 g/hL **NEO_2® XC**
Trial method: samples were collected from the infuser every day.

CONCLUSION

After 14 days, the results of aroma analysis correlated with daily tastings allowed us to make the following observations:

- Regular progression of extraction of aromatic compounds (figure 1).
- Correlation of results with follow-up of tasting during the 14 days of treatment (figure 2).

NB: the winery saves practically 20 to 30 days of infusion time.
The addition of **NEO_2® XC** during ageing with the dynamic infuser increases the volume and perception of fruit, and reduces dryness.

CHEMICAL ANALYSES (Figure 1)

Chemical analyses of wood extractable compounds demonstrate the regularity of extraction and the total extraction of compounds from the wood (after 12 days, the curve of the various extractable compounds flattens out: the extraction of the analysed compounds is complete).

TASTING OF DAILY TRIALS: REGULAR PROGRESSION (Figure 2)

This tasting was carried out 6 months after the trial to verify the stability of the result. The sensory analysis chart shows regular progression of olfactory and taste parameters in comparison with a conventional 'static' infusion with chips. Most importantly, the extraction process is speeded up, 2 to 3 times faster on average, while tasting also shows positive development of woody flavour.

Figure 1

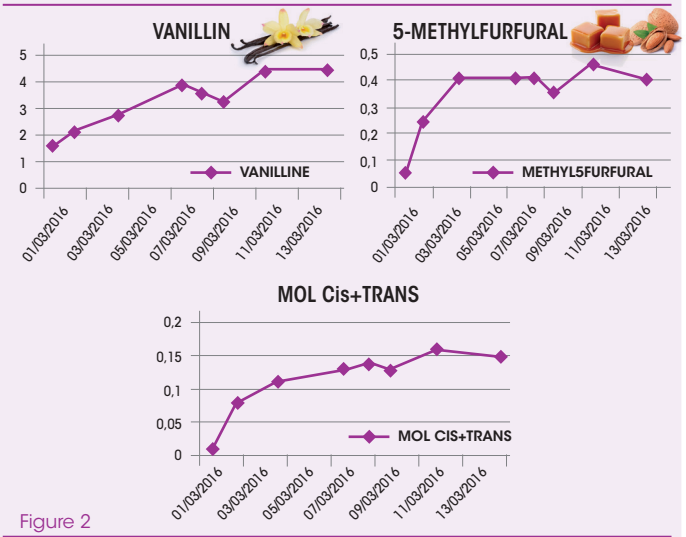
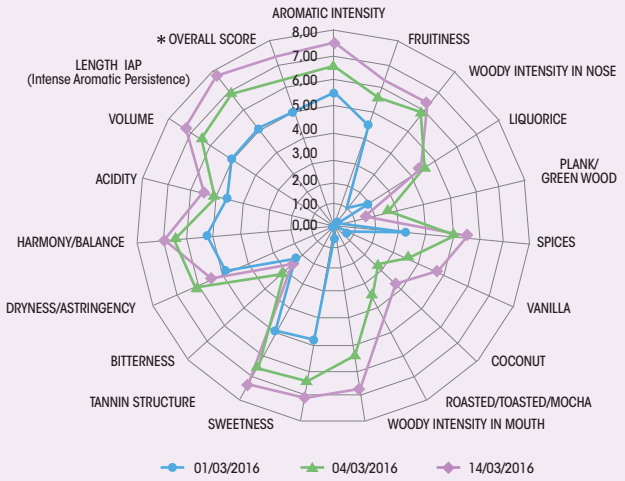


Figure 2



NEO_2® XC AND TECHNOLOGICAL AGEING

Using **NEO_2® XC** during the technological ageing process (either with the infuser or with wood in general, and with micro-oxygenation) makes it possible to protect the wine from unintentional oxygen input, while also boosting the protection and expression of fruity aromatic profiles.The activity of complex grape and yeast polysaccharides improves the incorporation of woodiness (by removing the most aggressive portion of the aromatic compounds in wood), and enhances the volume and smoothness of wines.The protein portion of yeast derivatives also provides a 'fining' effect on more aggressive tannins, leading to a decrease in bitter and astringent notes.

THE ORIGIN OF FLOTATION

Flotation is an ancestral practice that has been in existence for over 2000 years. It is a separation technique based on the differences in surface hydrophobicity of the particles to be separated. Much used in mineral processing to separate the minerals from each other and in wastewater treatment to remove fats, this ancient technique has proved its worth over time. Flotation first appeared in winemaking in 1987. Today, it is widely used in wineries and is highly suitable for musts that are very rich in deposits. This technique makes it possible to automate must racking, with a very rapid separation of the solid and liquid phases.

HOW TO ACHIEVE SUCCESSFUL FLOTATION ?

For many years, **Martin Vialatte has been carrying out research into the formulation and application of specific products** for flotation processes.

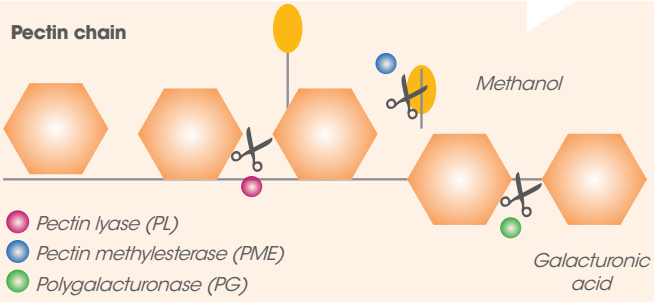
To achieve successful flotation, it is important to respect the following factors:

TREATMENT OF MUST BEFORE FLOTATION



Enzyme treatment

The must should first be treated with enzymes in order to break down the pectins that maintain the particles in suspension. This is because the must's viscosity is a limiting factor for a smooth flotation process. Pectolytic enzymes play an essential role in the process. They cause the pectin to break down, thus decreasing the must's viscosity. In addition, enzymes such as **VIAZYM® FLOT** are perfectly suited to the constraints of flotation (rapid action at low temperatures).



Pectin lyase (PL) rapidly reduces the viscosity of the must. The action of polygalacturonase (PG) requires the prior action of pectin methylesterase (PME), which leads to the formation of charged pectin particles that react with the fining agents. Pectinases thus encourage the formation of floc, while reducing viscosity.

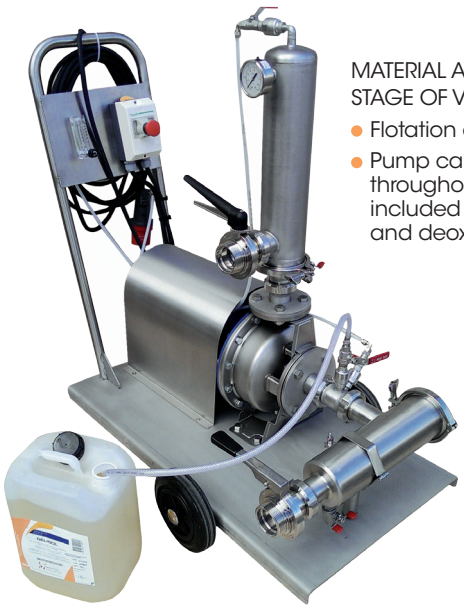
Fining

Protein fining agents, gelatins and plant proteins (**PROVGREEN L170** and **KTS FLOT**) ensure flocculation of particles. They play a pivotal role in the formation of floc. Their action can be improved and completed by adding bentonite, which causes improved compaction of deposits. Bentonite (such as **ELECTRA**) ensures the cohesiveness of the floc and binds the gas bubbles to the floc, thus encouraging it to float back to the surface of the must.

Implementation depends on the grape variety, available equipment and the choice of technological aids. It is therefore essential to carry out trial runs in order to adjust dosages at the beginning of each campaign.



ENOL FLOAT: FLOTATION PUMP



MATERIAL ADAPTABLE TO EVERY STAGE OF VINIFICATION

- Flotation at harvest
- Pump can be used throughout the year, with included fining connector and deoxygenation

Flow rates of must and of gas

Poor synergy between flow rates of must and of gas will affect the quality and clarity of the must.



Must turbidity at the flotation cell outlet

This control can be used to adjust the dosage of the fining agent and/or flow rates according to the set objective. Flotation that is too well adjusted (turbidity of must < 30 NTU) can lead to problems with alcoholic fermentation. This is because the presence of deposits is important, since not only do they provide a significant quantity of lipids but they also play a pure physical role in the nucleation of CO_2, thus helping the formation of bubbles and the release of CO_2.

Using a nutrient such as **NUTRICELL® FLOT,** well suited to flotation and combining a source of organic nutrients and cellulose (increasing the insoluble fraction that affects turbidity), enables effective management of initiation of alcoholic fermentation of musts clarified by flotation.

OPERATION OF THE DEVICE

Gas used

Gaz	Advantages	Commentaries
N_2	Bubbles of the right size to carry away flocs. No risk of oxidation.	
Compressed air	Economical. Oxygenation of musts helps initiation of alcoholic fermentation.	Requires the presence of an oil filter / deodoriser in the compressor. Filter must be cleaned regularly.
CO_2	Protects musts from oxidation.	Large bubbles that have difficulty carrying the flocs to the surface. The CO_2 can cause significant surface agitation with continuous flotation.

In conclusion

Following trials carried out for many years by MARTIN VIALATTE, the Research and Development department has ascertained the benefit of flotation for all types of must, and especially for musts that are difficult to clarify. Prior enzyme treatment of musts is necessary to ensure a smooth flotation process. This leads to a reduction in viscosity and to the formation of charged pectin particles that react with the fining agents.

Plant protein fining agents prove to be very effective at flocculating particles in suspension and at forming the required flocs, which are then carried up to the top of the tank by the injected gas.

Bentonite, just as in static racking, facilitates flocculation of all the plant fining agents. More research needs to be carried out into must turbidity and nutrients, so as to combine effective racking with good alcoholic fermentation.

Research has thus shown that oenological products are essential for the optimisation of the flotation process. The products selected, their dosages and the ways in which they are combined are crucial.

FLOTATION PROCESS



VIAZYM® FLOT
at 2 g/hL (3 to 4 g/hL with harvest that is cold or hard to clarify)



TANK

SO_2
(according to vinification selected by winemaker)

Wait for 2 hours

INJECTION OF AIR OR NITROGEN



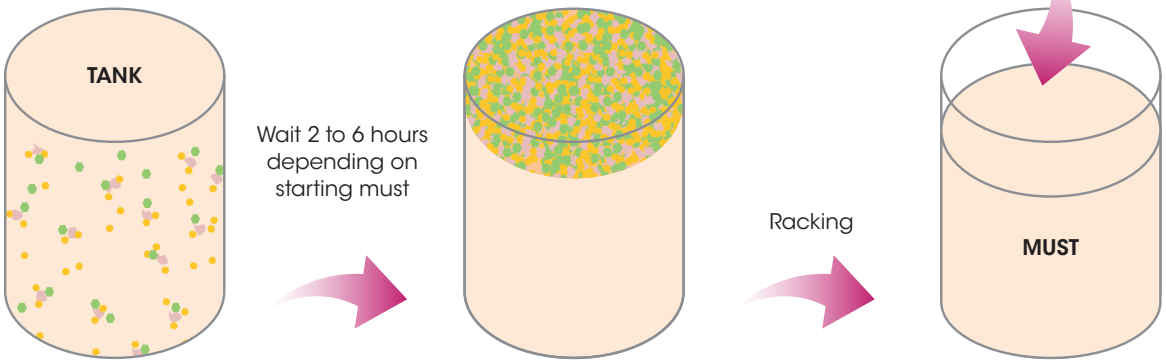
FLOTATION PUMP ENOL FLOAT

KTS FLOT
at 5 cL/hL





NUTRICELL® FLOT
20 to 60 g/hL
(Before inoculation of the vat)



KEY:: MUST DEPOSIT · PROTEIN FINING AGENTS · AIR OR NITROGEN

Flotation is used for white and rosé musts, but also for red musts from thermovinification and which will be fermented in liquid phase.



PROVGREEN® PURE MUST

PROVGREEN® PURE MUST is made up of 100 % plant proteins. This product enables quick flocculation, clarification and treatment against oxidized polyphenols. **PROVGREEN® PURE MUST** originates from a considerable compacting of lees and is adapted to reasoned oenology.

Packaging: 1 kg, 5 kg and 10 kg

Application rate: 15 to 30 g/hL



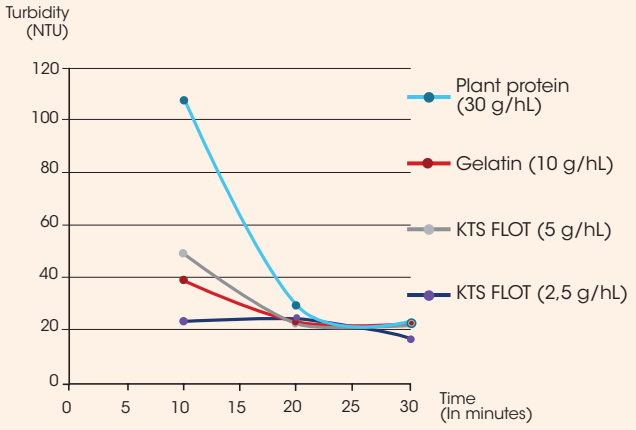
KTS FLOT

KTS FLOT is a next-generation product for the flotation of whites, rosés and reds resulting from thermovinification. It is composed of proteins and plant polysaccharides. KTS FLOT ensures fast, thorough clarification of musts with improved compaction of the cap. It also helps to protect against oxidation and refines the must before alcoholic fermentation.

Packaging: 20 L

Application rate: 2 to 10 cl/hL

Effect of flotation on a pinot d'Auxérois





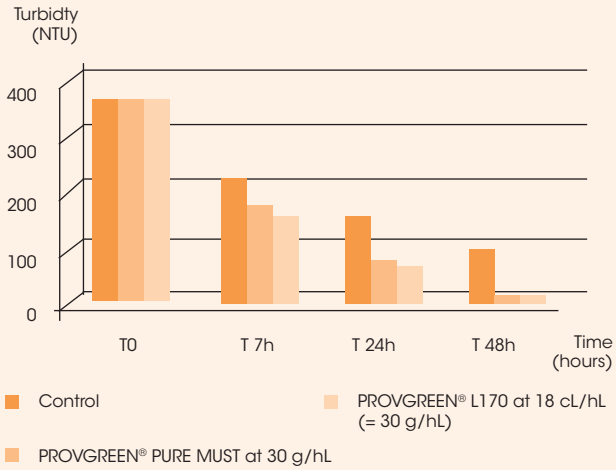
PROVGREEN® L170

PROVGREEN® L170 is a solution of pea protein. The formulation was created as the result of the development of a specific production process able to attain a high concentration of 170 g/L of plant proteins. This fining agent guarantees rapid clarification of musts and wines and considerably limits the volume of deposits compared to animal-based fining agents. **PROVGREEN® L170** also helps to eliminate oxidised polyphenols in treated musts and wines.

Packaging: 20 L

Application rate: On must: 10 to 25 cL/hL
On wine: 3 to 10 cL/hL

Impact of PROVGREEN® PURE MUST and PROVGREEN® L170 on a Chardonnay must



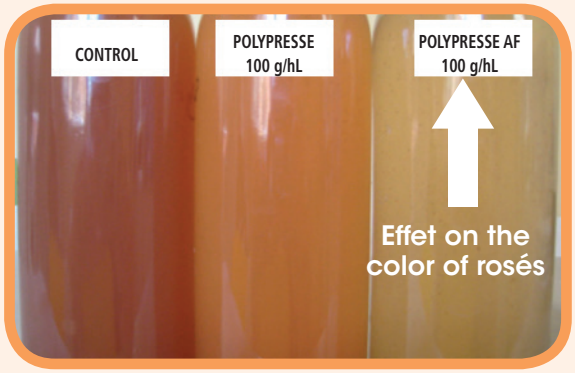
At equivalent doses, **PROVGREEN® PURE MUST** and **PROVGREEN® L170** give identical results. For a clarification based on plant proteins, winemakers have a choice of using a product in powder or liquid form.

POLYPRESSE AF

POLYPRESSE AF is a complex of protein, mineral and chacoals fining agents. It can be applied to white or rosé musts that have undergone rough mechanical treatment during the prefermentation phases or excessive exposure to air. **POLYPRESSE AF** combats premature oxidation of musts and reduces astringency on the finish. Musts treated with **POLYPRESSE AF** appear fresher. The balance of the wine is more flattering and there is enhanced perception of its fruity expression. In the mouth the heavy, oxidised character has disappeared and astringency has been removed. Thanks to the action of **POLYPRESSE AF** the treated must has a lower hue index, less yellow. **POLYPRESSE AF** reduces the volume of lees and thus limits loss of must.

Packaging: 5 kg

Application rate: 30 to 160 g/hL



Comparative trial on must, dose of 100 g/hL

Tasting:

Press musts treated with **POLYPRESSE AF** are described as being more flattering and fresher than the control while enhancing the fruity character.

Astringency and bitterness are softened.

CLARISOL

CLARISOL is a specific treatment used against the phenomenon of gradual maderization. This product is a non-allergenic alternative to food caseine. **CLARISOL** is a curative treatment. **CLARISOL** eliminates oxidized or oxidizable phenolic compounds, browning agents which are detrimental to the color and taste of white and rosé wines. It refreshes the color and refines the taste with its astringent polyphenol action and contributes to clarifying wine while reviving wines presenting evolved traits.

Packaging: 1 kg, 5 kg, 15 kg

Application rate: 20 to 100 g/hL

BENTOGREEN



BENTOGREEN is an association of pea proteins and bentonite. It eliminates oxidized or oxidizable polyphenols in addition to unstable proteins in musts. **BENTOGREEN** regulates alcoholic fermentation and obtains fresher wines with regard to the aromatic level with a younger color.

Packaging: 5 kg

Application rate: 20 to 60 g/hL

POLYGREEN



POLYGREEN is a blend of plant proteins, PVPP, bentonites and cellulose. It eliminates oxidized or oxidizable phenolic compounds of musts in addition to the brown color and bad taste associated with oxidation. **POLYGREEN** reduces excessive astringency and participates in eliminating bitterness. **POLYGREEN** reestablishes aromas and fruitiness. The effectiveness of **POLYGREEN** is on line with caseine-based traditional products such as **POLYCASE**.

Packaging: 1 kg, 5 kg, 10 kg

Application rate: 20 to 120 g/hL

DELTAGREEN



DELTAGREEN eliminates oxidized or oxidizable polyphenols. It refreshes color and aromatic expression. **DELTAGREEN** reduces astringency and eliminates bitterness. It creates low volume of lees and thus less wine loss. This product is easy to use and is applied directly without prior rehydration in water.

Packaging: 1 kg and 10 kg

Application rate: 30 to 120 g/hL



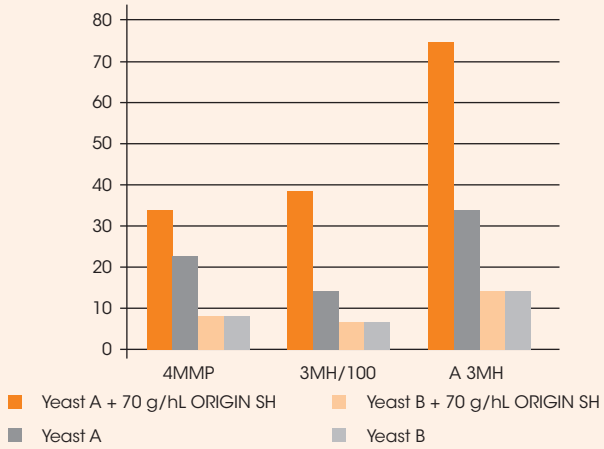
ORIGIN SH

ORIGIN SH is a next-generation fining agent designed to limit the risk of thiol breakdown. It is made up of various active materials that act in synergy to preserve the aromatic potential of grapes, especially in varieties rich in thiol precursors. **ORIGIN SH** binds heavy metals. Their detrimental action on wine aromas is thus severely limited, enabling optimum expression of the grapes' aromatic potential. Moreover, **ORIGIN SH** protects wine aromas from oxidation by releasing reducing compounds. It also brings about selective reactions with polyphenols, precipitating them out before they can oxidize and cause oxidasic casse.

Packaging: 1 kg and 5 kg

Application rate: 30 to 70 g/hL

Effect of ORIGIN SH on thiol concentrations in a white Sauvignon (Bordeaux), with a thiol yeast (Yeast A) and a neutral yeast (Yeast B)



A combination of **VIALATTE FERM® W28** and **ORIGIN SH** is ideal for optimizing thiol concentrations in wines. It is also recommended to use an organic nutrient such as **NUTRICELL® AA**.

RANGE OF FINING AGENTS FOR MUSTS

PRODUCTS	PROPERTIES	TYPE OF WINE	APPLICATION RATE
	NON ALLERGENIC FINING		
PROVGREEN® PURE MUST	Non allergenic, clarification, elimination of oxidizable and oxidized polyphenols		15 to 50 g/hL 5 to 20 cL/hL
PROVGREEN® L170	Non-allergenic, clarification, elimination of oxidized and oxidizable polyphenols		3 to 25 cL/hL
KTS FLOT	Non-allergenic, clarification by flotation, compaction of the cap of must deposits	from thermovinfication	2 to 10 cL/hL
CLARISOL	Non allergenic substitute to caseine, elimination of oxidized polyphenols		20 to 100 g/hL
POLYGREEN	Non allergenic complex for elimination of oxidized and oxidizable polyphenols, bitterness, compacting of lees		20 to 120 g/hL
POLYPRESSE AF	Non allergenic treatment of press musts, reduces astringency and color of rosé		30 to 160 g/hL
BENTOGREEN	Treatment of musts without PVPP for organic wines, elimination of proteins		20 to 60 g/hL
DELTAGREEN	No prior rehydration is required, treatment against oxidation		30 to 120 g/hL
ORIGIN SH	Limite le risque de dégradation des thiols		30 to 70 g/hL
	CASEINE BASED FINING		
CASEINE SOLUBLE (CASESOL)	Treatment against oxidation		20 to 50 g/hL
POLYCASE	Non allergenic complex used to eliminate oxidized and oxidizable polyphenols and bitterness		20 to 120 g/hL
POLYPRESSE	Traitement des moûts de presse, réduit l'astringency et la couleur des rosés		60 to 120 g/hL

AROMATIC INTENSITY



VIAZYM® MP

VIAZYM® MP is a special preparation used for optimizing skin maceration while improving pressing, settling and thus the quality of musts coming from skin maceration. This enzyme likewise optimizes pressing and increases juice yield. **VIAZYM® MP** results in improved clarification of musts and fast settling. This increases the extraction of aromatic precursors during skin maceration and releases glycosylated aromas.

Packaging: 100 g

Application rate: 1,5 to 3 g/100 kg



VIAZYM® AROMA

Based on its specific composition, **VIAZYM® AROMA** improves wine quality, enhances clarification of musts, facilitates subsequent filtration of wine and increases varietal aroma by releasing aromatic terpenes (terpenic glycosides) from naturally occurring precursors in the must.

Packaging: 100 g

Application rate: 2 to 5 g/hL

CLARIFICATION



VIAZYM® CLARIF ONE

VIAZYM® CLARIF ONE is a liquid pectolytic enzyme preparation used for the fast clarification of white and rosé musts. This enzyme enables obtaining compacted lees.

Packaging: 1L, 10 L and 20 L / 1 kg

Application rate: 2 to 5 mL/hL / 2 to 5 g/hL

VIAZYM® CLARIF EXTREM

VIAZYM® CLARIF EXTREM is a very concentrated liquid enzyme. It promotes obtaining low turbidity musts while providing excellent results on altered harvests. **VIAZYM® CLARIF EXTREM** is adapted to "amylic" processes and obtains very clarified musts. This enzyme is likewise indicated for cold stabilization with the development of varietal aromatic characteristics.

Packaging: 100 mL and 1 L

Application rate: 0.3 to 1 mL/hL

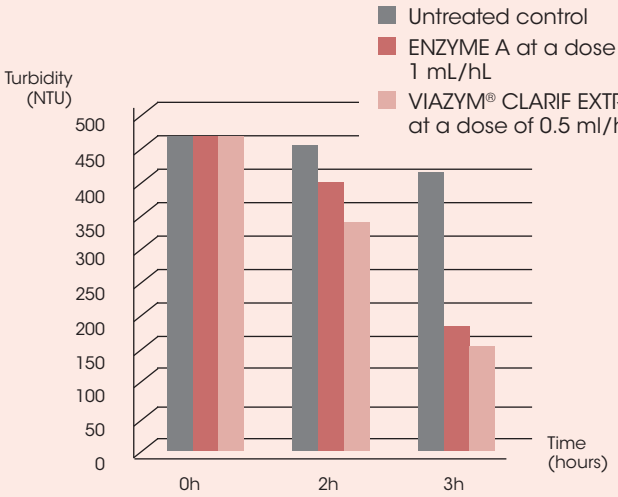
VIAZYM® CLARIF PLUS

VIAZYM® CLARIF PLUS is a special preparation for fast and efficient clarification of pectin-rich musts.

Packaging: 100 mL, 1 L and 10 L / 100 g

Application rate: 1 to 2 mL/hL / 1 to 2 g/hL

EFFECT OF VIAZYM® CLARIF EXTREM AND ENZYME A ON THE TURBIDITY OF A MELON DE BOURGOGNE MUST



With **VIAZYM® CLARIF EXTREM** used **at half the dose**, a lower turbidity is obtained than with clarification enzyme A.

EXTRACTION



VIAZYM® EXTRACT ONE

VIAZYM® EXTRACT ONE is a pectinase enzyme preparation used to extract phenolic compounds of grapes during red wine-making. This enzyme is recommended for improving red maceration (pre and post fermentation) and for facilitating pressing and clarifying of red musts.

Packaging: 1 kg

Application rate: 2 to 5 g / 100 kg

VIAZYM® EXTRACT

VIAZYM® EXTRACT is particularly adapted to skin maceration for white grape harvests for the extraction of aromas, full and full bodied aromas. This can likewise be used for red wine-making maceration for extracting and stabilizing color, the structure and the aromas of the wine.

Packaging: 100 mL, 1 L, 10 L / 100 g and 1 kg

Application rate:
Red harvests: 1 to 3 mL/100 kg or 1 to 3 g/100 kg
White harvests: 2 to 4 mL/100 kg or 2 to 4 g/100 kg

VIAZYM® EXTRACT PREMIUM

VIAZYM® EXTRACT PREMIUM is a pectinase preparation containing a large array of complementary activities. Based on its specific composition in secondary activities (protease acid), **VIAZYM® EXTRACT PREMIUM** participates in breaking down proteins in view of preventing the precipitation of coloring matter. Wines obtained are more complex, very colorful with a tannic structure which together give rise to good ageing potential. This preparation is to be used on high polyphenolic potential vine varieties or those requiring fast extraction of tannins for faster color stabilization or on high potential harvests in long maceration in view of producing wines to be aged, either on partially altered harvests in order to quickly extract tannins and color.

Packaging: 100 g

Application rate: 2 to 3 g/100 kg

SPECIALTIES



VIAZYM® FLUX

VIAZYM® FLUX is a liquid pectinase and ß-glucanase concentrated enzyme. It breakdowns pectins and glucanes. **VIAZYM® FLUX** helps static clarification of raw wine and improves prior to bottling filterability. **VIAZYM® FLUX** is at the origin of media filter savings.

Packaging: 1 L and 10 L

Application rate: 3 to 5 mL/hL



250% This is the percentage increase in filtration rate *when you use VIAZYM® FLUX*

30% This is the percentage of wine you save during earth filtration *when you use VIAZYM® FLUX*

500€ This is the minimum financial gain you obtain when you filter 1000 hL *with VIAZYM® FLUX*

SPECIALTIES



VIAZYM® FLOT

VIAZYM® FLOT is a liquid pectolytic enzyme preparation used for the flotation of musts. It promotes the rising of the very compacted suspension deposit cap.

Packaging: 1 L

Application rate: 2 to 4 mL/hL



VIAZYM® THERMO

VIAZYM® THERMO is a specific liquid and concentrated enzyme which is used after thermo-treatment: on musts from 65 °C. It breaks down pectins and colloids released during heat treatment and improves filterability of thermo-treated musts and corresponding wines. **VIAZYM® THERMO** results in filtration sediment savings.

Packaging: 1 Land 10 L

Application rate: 2 to 5 mL/hL



VIAZYM® ROUGE

Micro-granulated enzyme, **VIAZYM® ROUGE** breaks down pectins and clarifies more quickly.This enzyme develops the color and fruitiness of red wines. **VIAZYM® ROUGE** participates in reducing vegetal notes.

Packaging: 100 g

Application rate: 2 to 5 g/hL



VIAZYM® ELEVAGE

VIAZYM® ELEVAGE is a ß-glucanase concentrated preparation. It perfects maturing on lees and results in more complex wines with more volume. **VIAZYM® ELEVAGE** improves the clarification and filterability of juices and glucane-rich wines.

Packaging: 100 g

Application rate: 3 to 5 g/hL

VIAZYM® PRODUCT RANGE

NAME	APPLICATION	TYPE OF WINE/MUST	DOSAGE	FORM
AROMATIC INTENSITY				
VIAZYM® MP	Extraction and expression of aromas in skin maceration	white musts	1,5 to 3 g/100 kg	POWDER
VIAZYM® AROMA	Enhancement and expression of aromas in maturing wines	white wines	2 to 5 g/hL	POWDER
CLARIFICATION				
VIAZYM® CLARIF ONE	Standard clarification	white and rosé musts	2 to 5 mL/hL 2 to 5 g/hL	LIQUID and POWDER
VIAZYM® CLARIF PLUS	Clarification of pectin-rich musts - cold racking - flotation	white and rosé musts	1 to 2 mL/hL 1 to 2 g/hL	LIQUID and POWDER
VIAZYM® CLARIF EXTREM	Clarification of difficult musts thanks to a highly concentrated enzyme - cold stabilisation - cleaning of filtration membranes	white and rosé musts	0,3 to 1 mL/hL	LIQUID
EXTRACTION				
VIAZYM® EXTRACT ONE	Standard extraction	red musts	2 to 5 g/100 kg	POWDER
VIAZYM® EXTRACT	Broad-spectrum extraction for red grape varieties - Skin maceration of white grape varieties	red and white musts	red harvests: 1 to 3 mL/100 kg or 1 to 3 g/100 kg white harvests: 2 to 4 mL/100 kg or 2 to 4 g/100 kg	LIQUID and POWDER
VIAZYM® EXTRACT PREMIUM	Extraction for harvests with high polyphenolic potential or intended for long maceration	red musts	2 to 3 g/100 kg	POWDER
SPECIALITIES				
VIAZYM® FLOT	Clarification by flotation	white, rosé and red musts	2 to 4 mL/hL	LIQUID
VIAZYM® THERMO	Clarification of thermovinified musts (Thermovinification - Flash détente - Hot pre-fermentation maceration)	red musts	2 to 5 mL/hL	LIQUID
VIAZYM® FLUX	Improved filterability of musts and wines - Clarification of musts and wines from botrytised harvests	white, rosé and red musts and wines	3 to 5 mL/hL	LIQUID
VIAZYM® ROUGE	Clarification of juice and organic red wines	red musts and wines	2 to 5 g/hL	POWDER
VIAZYM® ELEVAGE	Optimisation of maturation of wines on lees	white, red and rosé wines	3 to 5 g/hL	POWDER



REFLEX MALO 360

REFLEX MALO 360 is an *Oenococcus oeni* bacterium selected to carry out malolactic fermentation of red and white wines in limiting conditions (low pH, high alcohol content, difficult grape varieties, etc). **REFLEX MALO 360** is a bacterium ready for use, and is suitable both for co-inoculation and for post fermentation inoculation.

Packaging: Dose to 25 hL and 250 hL

VITILACTIC® H+

Selected by the IFV in Beaune and isolated on Chardonnay from Bourgogne, **VITILACTIC® H+** presents a very good capacity to acclimatize to difficult conditions. It is recommended for good management of malolactic fermentation for white and rosé wines with low pH levels or high degree red wines. **VITILACTIC® H+** benefits from a One Step process which enables improved acclimatization of bacteria in wine. Optimum fermentation temperature is between 16°C and 18°C.

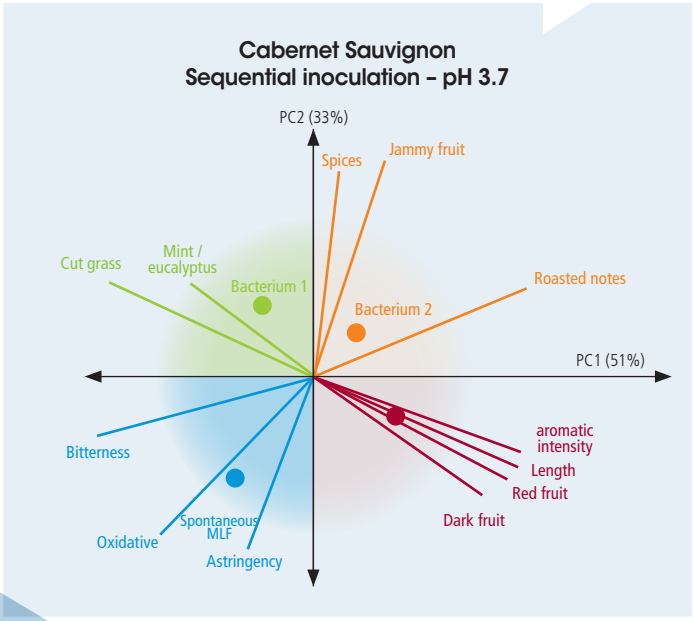
Packaging: Dose to 50 hL



VITILACTIC® EXPRESSION

VITILACTIC® EXPRESSION est une bactérie lactique à ensemencement direct recommandée pour l'élaboration de vins rouges. Elle est parfaitement adaptée dans les cas de maturités correctes à fortes. **VITILACTIC® EXPRESSION** développe des notes florales et fruitées grâce à la synthèse d'esters qui tiennent dans le temps et renforcent ainsi l'intensité et la fraîcheur des vins.

Conditionnement : 25 hL et 100 hL





VITILACTIC® STARTER BL01

VITILACTIC® STARTER BL01 is a lactic bacteria strain selected in Champagne Ardennes for carrying out malolactic fermentation on very acidic white wine. **VITILACTIC® STARTER BL01** likewise contributes to producing white wine of great finesse in due respect with the typical character of vine varieties. Implementation requires prior acclimatization (starter culture).

Packaging: Sachets of 25 g, 100 g and 500 g



VITILACTIC® F

VITILACTIC® F is a direct pitching lactic bacteria selected by IFV in Beaune for its remarkable fermentation and organoleptic properties (color preserved at low temperatures for red and rosé wines, dominant fruity expression, increased roundness) perfectly suited for quality wines, whether primeurs or wines for ageing.

Packaging: Dose to 2.5 hL, 25 hL, 100 hL and 250 hL



VITILACTIC® CO-FA

VITILACTIC® CO-FA was selected by the IFV in Beaune and is presented as a One Step kit (Bacteria + reactivator). This *Oenoccocus oeni* strain is recommended for co-inoculation usage for the fast and safe carrying out of malolactic fermentation for red wines.

Packaging: Dose to 250 hL

VITILACTIC® PRIMEUR

Part of the IFV collection, **VITILACTIC® PRIMEUR** was selected for its excellent fast growth and fermentation capabilities. It is recommended for the production of Beaujolais primeurs, used in co-inoculation. Thanks to a specific production process, it can be directly inoculated into wines in favourable conditions, without rehydration or addition of nutrients, which makes it very easy to use.

Packaging: Dose to 250 hL

NAME	PACKAGING	TYPE	ALCOHOL	pH	SO_2 T SO_2 L	OPTIMUM TEMPERATURE RANGE *	END OF AF	CO-INNOCULATION	DIACETYL PRODUCATION	SENSORY PROFILE
REFLEX MALO 360	25 hL / 250 hL	Direct inoculation	<16 %	> 3,2	< 50 mg/L / < 10 mg/L	> 16°C			Low to average	Respect of typical varietal character
VITILACTIC® STARTER BL01	25 g / 100 g / 500 g	Pied de cuve	< 14 %	> 2,9	< 70 mg/L / < 10 mg/L	> 18°C et < 25°C			Very Low	Neutral, respect of aromatic finesse
VITILACTIC® F	2,5 hL / 25 hL 100 hL / 250 hL	Direct inoculation	< 15 %	> 3,2	< 50 mg/L / < 10 mg/L	≥ 16°C			Low to average	Round, fruity wines
VITILACTIC® EXPRESSION	25 hL / 100 hL	Direct inoculation	< 15 %	>= 3.3	< 50 mg/L < 10 mg/L	>=15°C			Low to average	Enhances floral and fruity notes
VITILACTIC® CO-FA	250 hL	1-STEP®	< 15 %	> 3,3	< 50 mg/L / < 10 mg/L	> 17°C			Low	Fresh, fruity wines
VITILACTIC® H+	50 hL	1-STEP®	< 16 %	> 3	< 45 mg/L / < 10 mg/L	> 13°C			Very Low	Respect of varietal aromas
VITILACTIC® PRIMEUR	250 hL	Direct inoculation	< 13,5 %	> 3,15	< 50 mg/L / < 10 mg/L	> 17°C			Low	Enhances early aromas

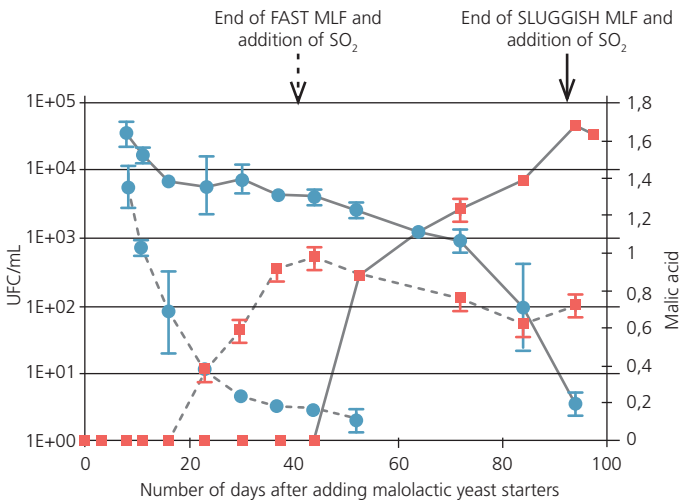
INTEREST OF CO-INOCULATION

Different pitching methods:

- The timing of inoculation is a real oenological choice in the wine-making process, along with the choice of bacteria. Bacteria can be applied during, after the end of AF or even several months after the end of AF.
  Co-inoculation refers to an inoculation 24 to 48 hours after yeasting. Early inoculation refers to an inoculation between midway and 2/3 way of AF. Pitching at the end of AF is some most traditional practice called sequential inoculation. In the case of later inoculation, it is referred to as an offset inoculation.
- For the last 12 years, co-inoculation and early inoculation are the most widespread practices used for different reasons including:
  - Time savings with regard to wine-making (co-inoculation)
  - Better guarantee of implanting bacteria
  - Limit risk of contamination by undesirable micro-organisms (lactobacillus, *brettanomyces* ...)
- These inoculation practices are particularly interesting for the following applications:
  - Optimization of work in the wine cellar (time saver / heating energy savings /better winery rotation / reduction of stress related to carrying out malolactic fermentation)
  - Optimization of organoleptic qualities of wine (limit contaminations, oxidation, increased aromatic freshness)
  - Carry out MLF under difficult conditions
- **Martin Vialatte** can be used in co-inoculation, early, sequential or offset inoculation.

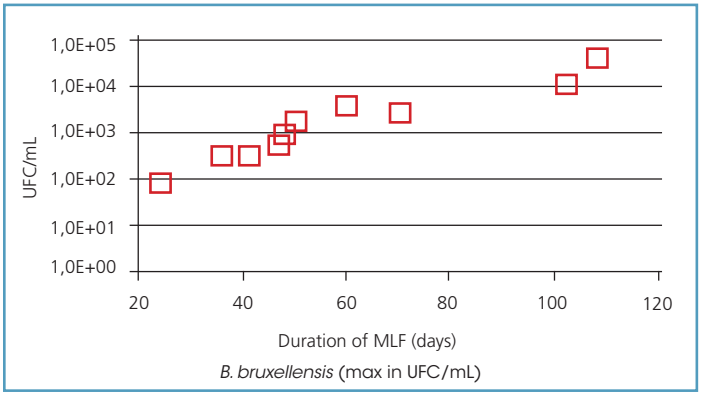
INFLUENCE OF CARRYING OUT MLF ON THE GROWTH OF *BRETTANOMYCES*

Source: Renouf V., 2006, Doctoral thesis, INP of Toulouse



Comparison of the evolution of population of B. *bruxellensis* ■ in malic acid ● in fast MLF (...) and slow (-) of Merlot vinified in 2004 at the VI estate.

On wine presenting a risk of contamination, in case of fast MLF, early sulphiting can be carried out to strongly limit the development of *brettanomyces*. When MLF is badly managed, *brettanomyces* develop and reach large populations, which may cause irreversible damage.



B. bruxellensis (max in UFC/mL)

This studies shows that the concentration of *brettanomyces* is directly proportional to the duration of MLF, thus the interest in using selected lactic bacteria, possibly in co-inoculation, to accelerate the carrying out of malolactic fermentation.

TANNINS PRODUCT RANGE

The botanic origin of tannins (gall nut, chestnut, oak, grape, etc. tannins) in addition to the physico-chemical properties associated with these tannins (anti-free radical, reaction with proteins, co-pigmentation, oxidative protection, etc.) have enabled us to develop a complete tannin product range which may be used in accordance with the quality of the harvest and also based on the product objective the client has set.

This product range is two-fold:

Vinification tannins: These tannins enable the early correcting of harvests in view of guaranteeing the homogenous quality of wine from one vintage to the next.

Ageing tannins: These tannins are used to refine wine in order to meet the objective for the product the client has set.

These two parts may be divided into two sub parts:

Red wines: Characterized by a significant presence of polyphenols (tannins and anthocynins) which may be more or less mature depending on vintage. In addition, anthocyanins responsible for color must be protected and stabilized.

White and rosé wines: Characterized by a slight presence of polyphenols which make the wines sensitive to oxidation and change.

VINIFICATION TANNINS



SUBLIFRESH

A specific preparation of proanthocyanidic tannins and gallotannins, **SUBLIFRESH** is formulated in order to refresh and enhance aromatic perception of white and rosé wines. It can be used on musts and wines.

Packaging: 1 kg

Application rate: 2 to 15 g/hL



SUBLISTAB

SUBLISTAB is a blend of ellagiques and proanthocyanidiques tanins weakly polymerized, **SUBLISTAB** was specifically developed for protecting and definitively stabilizing wine color. This is a top choice tannin for thermo-vinification type procedures.

Packaging: 1 kg and 15 kg

Application rate: 10 to 40 g/hL



SUBLITAN VINIF

SUBLITAN VINIF promotes the clarification and stabilization of red wine. It participates in making livelier colored red wine, less oxidized and more balanced. **SUBLITAN VINIF** has antioxidant capacity and protects the coloring matter by co-pigmentation and against reduction flavors.

Packaging: 1 kg and 5 kg

Application rate: On harvest: 10 to 40 g/100 kg



SUBLIWHITE

SUBLIWHITE is a blend of grape tannins selected for their antioxidant character and yeast derivatives. Experiments carried out over several years have enabled to develop **SUBLIWHITE**, a product adapted to white wine-making. **SUBLIWHITE** preserves the yellow-green color and enables an optimized clarification of white wine following alcoholic fermentation. It develops a fruity, floral and fresh character nose. **SUBLIWHITE** provides roundness, structure and a unique balance for wine tasting and removes any vegetal character.

Packaging: 1 kg and 5 kg

Application rate: 5 to 15 g/hL

VINIFICATION TANNINS



SUBLIRED

A preparation of proanthocyanidic tannins, **SUBLIRED** was specifically developed for the preservation and enhancement of fruity-type aromas. A premium tannin, **SUBLIRED** can be used for the production of modern, fruity, supple wines.

Packaging: 1 kg

Application rate: 2 to 15 g/hL



VITANIL B

VITANIL B is made up of tannins from tara pods (a leguminous tree found in South America). It is a gallotannin extracted with alcohol, and is perfectly suited for fining white wines. On must, **VITANIL B** plays a role in racking and clarification by reacting with excess proteins. It eliminates, among other substances, natural grape oxidases (tyrosinase and laccase secreted by Botrytis).

Packaging: 1 kg

Application rate: On must: 10 to 20 g/hL
On wine: 2 to 10 g/hL



VITANIL VR

VITANIL VR is essentially made up of proanthocyanidin-type condensed tannins. **VITANIL VR** acts in synergy with wine tannins to provide optimum stabilization of coloring matter. It protects anthocyanins from oxidation.

Packaging: 1 kg and 10 kg

Application rate: On harvest: 15 to 25 g/100 kg
On must: 10 to 20 g/hL
On wine: 5 to 10 g/hL



TANIGAL

TANIGAL is an oak gall tannin intended for the clarification and fining of white wines. **TANIGAL** plays a role in racking and clarification by binding the proteins in musts and wines. It preserves the organoleptic properties and structure of the wine. **TANIGAL** is essential in white wines when fining with a moderately hydrolysed gelatin (GELISOL). **TANIGAL** is also used for clarifying bottled sparkling wines produced in the traditional manner.

Packaging: 1 and 25 kg

Application rate: 2 to 8 g/hL



TANIXEL

TANIXEL is a pure chestnut tannin, which can be added during the wine-making phase but also during the ageing phase of red wine. **TANIXEL** protects color and participates in the organoleptic balance of red wines by providing structure while reacting strongly to must and wine proteins.

Packaging: 1 kg, 12.5 kg

Application rate: 5 to 50 g/hL

NAME		ANTIOXIDANT PROPERTIES	STABILISATION OF COLOUR	AROMA AND TASTE BALANCE
TANIGAL				
VITANIL B				
TANIXEL				
VITANIL VR				
SUBLITAN VINIF				
SUBLIWHITE				
SUBLIFRESH				
SUBLISTAB				
SUBLIRED				

AGEING TANNINS



SUBLIPROTECT

SUBLIPROTECT is a complex of grape tannins and inactive dry yeasts. This tannin contributes to balance in the mouth and a feeling of freshness. It prepares wines for maturation in barrels. **SUBLIPROTECT** strengthens resistance to oxidation and preserves redox potential.

Packaging: 1 kg

Application rate: 5 to 20 g/hL



SUBLI'OAK

SUBLI'OAK reveals the potential of red, white and sweet wines. **SUBLI'OAK** develops the aromatic complexity and fruit notes while providing roundness, volume and structure. **SUBLI'OAK** reveals vanilla and subtle roasting notes and removes the vegetal and bitter character. **SUBLI'OAK** provides freshness.

Packaging: 500 g

Application rate: 1 to 50 g/hL



VITANIL OAK

VITANIL OAK is a purified oak tannin which protects the coloring matter from oxidation and reinforces wine structure. **VITANIL OAK** develops roundness and wine harmony. **VITANIL OAK** limits reduction phenomena during ageing.

Packaging: 500 g and 10 kg

Application rate: On harvest: 5 to 10 g/100 kg
On wine: 5 to 15 g/hL

AGEING TANNINS



TANIRAISIN

Due to its specific production method, **TANIRAISIN** conserves the natural properties of grape skin tannins selected for their quality. As such, these highly reactive tannins will interact with other macromolecules found in wine. These multiple interactions have a positive impact on wine. **TANIRAISIN** has a clarification role (ideal supplement for fining). It promotes the stabilization of color (by forming tannin-anthocyanin stable complexes) and improves the organoleptic balance. **TANIRAISIN** likewise has a reinforced protective action against oxidation (anti-oxidant effect of polyphenols).

Packaging: 500 g

Application rate: On harvest: 10 to 30 g/100 kg
On must: 5 to 15 g/hL
On wine: 3 to 20 g/hL





TANIPEPIN

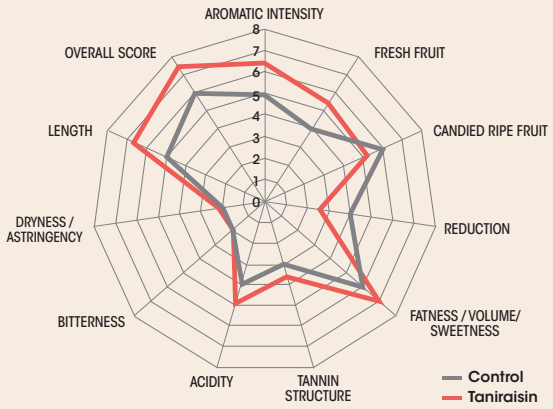
TANIPEPIN is a pure grape seed tannin adapted to red wine-making. By its very nature, it is efficient for promoting « tannin-anthocyanin » complexes thus enabling the good stabilization of the color of red wines. Presented in granulated form it facilitates and improves its implementation in the wine cellar. In addition **TANIPEPIN** improves the antioxidant capacity and the good evolution of wine. It reinforces wine balance by providing a supplement to the tannin structure while limiting oxidase action. **TANIPEPIN** participates in the protein stability of white and rosé wines.

Packaging: 500 g

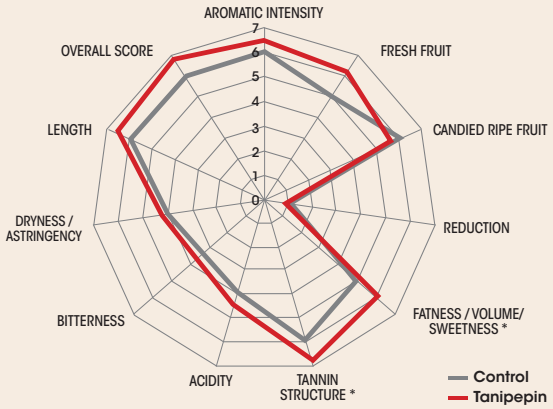
Application rate: On harvest: 5 to 15 g/100 kg
On must: 5 to 10 g/hL
On wine: 1 to 15 g/hL



SENSORY ANALYSIS - CINSAULT ROSÉ WINE



TANIRAISIN enhances aromatic sharpness and intensity, refreshes aromas and improves balance in the mouth.



*** : significant difference with analysis of variance**

On this red wine, **TANIPEPIN** enhances aromatic intensity especially with regard to fresh fruits, and also improves perception in the mouth with significantly more roundness in the mouth and tannin structure as well as length in the mouth. Wines to which **TANIPEPIN** was added obtained a better score than the control wine.

NAME		ANTIOXIDANT PROPERTIES	STABILISATION OF COLOUR	AROMA AND TASTE BALANCE
VITANIL OAK		◆◆	◆	◆◆
SUBLIOAK		◆	◆	◆◆◆
SUBLIPROTECT		◆◆◆	◆◆	◆◆◆
TANIRAISIN		◆	◆◆◆	◆◆◆
TANIPEPIN		◆	◆◆◆	◆◆

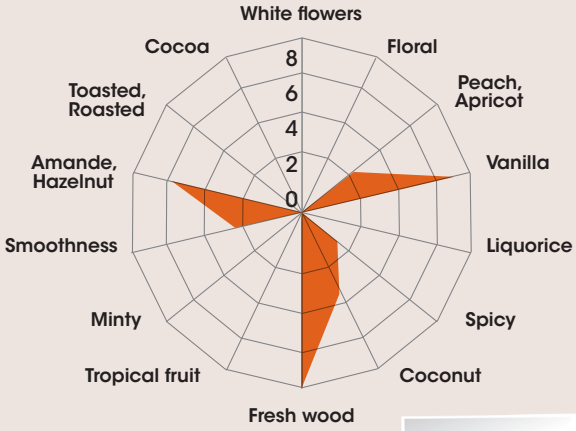


SIMILIOAK®

Goal: this blend was specifically developed for alcoholic fermentation in order to stabilise coloring matter and mask vegetal character. **SIMILIOAK®** is a practical 'tool' to be used directly on the harvest.

Packaging: 500 g and 5 kg

Application rate: 0.2 to 0.6 g/L



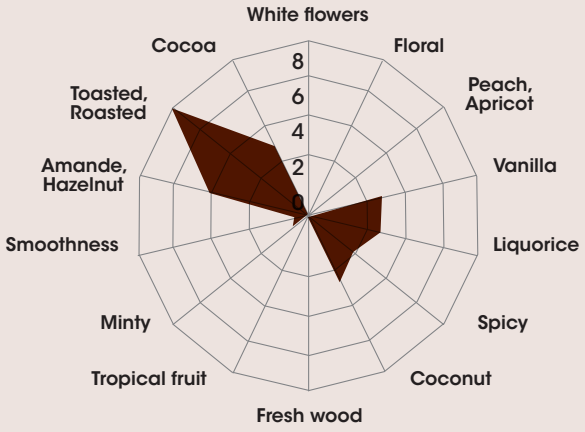


SIMILIOAK® TOASTED

Goal: SIMILIOAK® TOASTED is a blend developed in order to mask vegetal character, increase volume in the mouth and provide warm, roasted notes.

Packaging: 500 g and 5 kg

Application rate: For red wine: 0.15 to 0.50 g/L
For white wine: 0.05 to 0.20 g/L





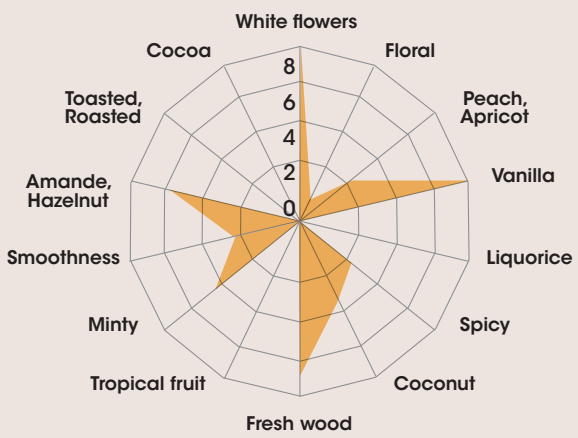
SIMILIOAK® WHITE



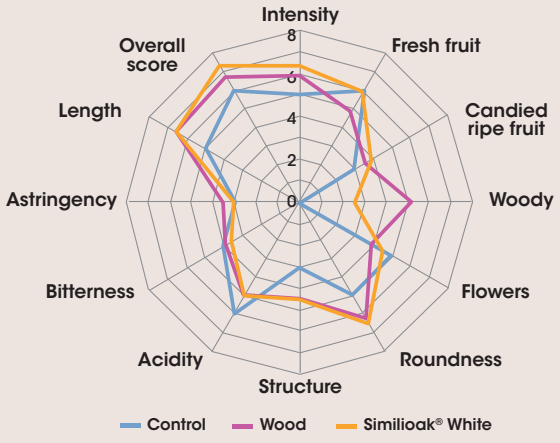
Goal: to protect aromas during fermentation. With a hint of vanilla, this blend develops floral notes while enhancing volume in the mouth.

Packaging: 500 g and 5 kg

Application rate: 0.05 to 0.2 g/L



Tasting of a Chardonnay white wine with the addition of fresh wood at 1 g/L or addition of SIMILIOAK® WHITE at 0.075 g/L



SIMILIOAK® WHITE provides a sensory profile very close to that of fresh wood: more aromatic intensity, more roundness and structure, less acidity and more length in the mouth. Moreover, **SIMILIOAK® WHITE** better respects the wine's aromas and preserves the freshness of the fruit while developing faint woody notes. The **SIMILIOAK® WHITE** method is the one preferred by the jury.

KTS RANGE

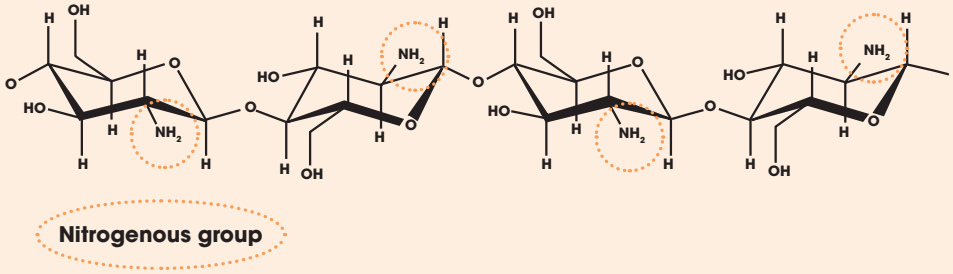
Fining agents formulated from chitin derivatives

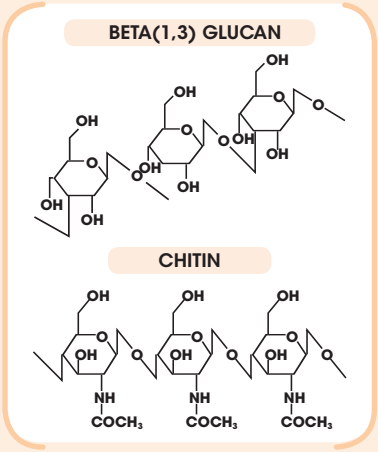
Chitosan and chitin-glucan are both obtained from chitin, one of the most widespread polysaccharides in nature. Chitin is found in the exoskeletons of crustaceans and insects, and is also produced by the fungus *Aspergillus niger*. In oenology, only chitin of fungal origin is permitted in order to avoid allergy-related problems.
Derivatives of chitin are already widely used in cosmetics, water treatment, and the agri-food and pharmaceutical industries for their numerous properties, including antimicrobial, texturising, chelating and immunostimulant properties.

In oenology, these compounds can be used for many applications, such as preventing iron and copper casse, clarifying musts and wines, reducing microbial populations, especially *Brettanomyces*, binding heavy metals, and lowering ochratoxin A content.
To offer its customers new options, Martin Vialatte has developed two innovative preparations formulated from chitin derivatives: **KTS CONTROL**, based on chitosan, for the control of undesirable microorganisms, and **KTS CLEAR**, based on chitin-glucan, for the clarification and elimination of unpleasant tastes.

Chemical structure of chitosan and chitin-glucan

Chitosan is a polysaccharide made up of randomly distributed ß-(1-4) linked D-glucosamine (deacetylated unit) and N-acetyl-D-glucosamine (acetylated unit).





Chitin-glucan is made up of polysaccharides of chitin and 1,3-β-glucan (D-glucose repeat unit). The two polymers are covalently bonded, forming a three-dimensional network.

KTS CLEAR

KTS CLEAR is a preparation based on chitin-glucan, developed for the clarification of wines and the elimination of unpleasant tastes such as strong reductions, animal and pharmaceutical notes, etc. Racking is necessary after settling in order to avoid release of absorbed compounds.

Applications: 1 kg

Application rate: 5 to 40 g/hL



Type of wine	Control	Wine treated at a dosage of 10 g/hL of KTS CLEAR
Pinot noir de Bourgogne	Marked reduction	Disappearance of reduction and perception of fruity notes
Pinot noir d'Alsace	Strong reduction (H_2S, cabbage) on the nose and in the mouth	Elimination of reduction and removal of astringent structure in the mouth
Chardonnay du Languedoc	Mousy taint	Elimination of fault and improved freshness and fruitiness
Muscat d'Alsace	Lack of sharpness on the nose and loss of aromatic intensity	Very marked aromatic enhancement and recovery of typical grape variety flavour

Table n°1 : Tasting commentaries after treatment with **KTS CLEAR**



KTS CONTROL

KTS CONTROL is a preparation based on chitosan intended to control the development of microorganisms that cause organoleptic alteration in wines. Completely soluble when placed in water, it can be used on wine after AF or after MLF.

Applications: 100 g and 500 g

Application rate: 5 to 10 g/hL

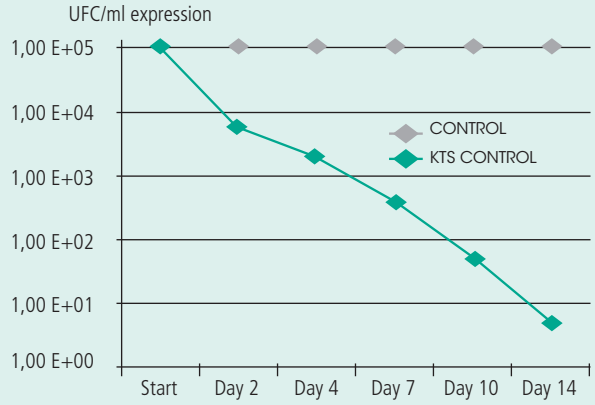
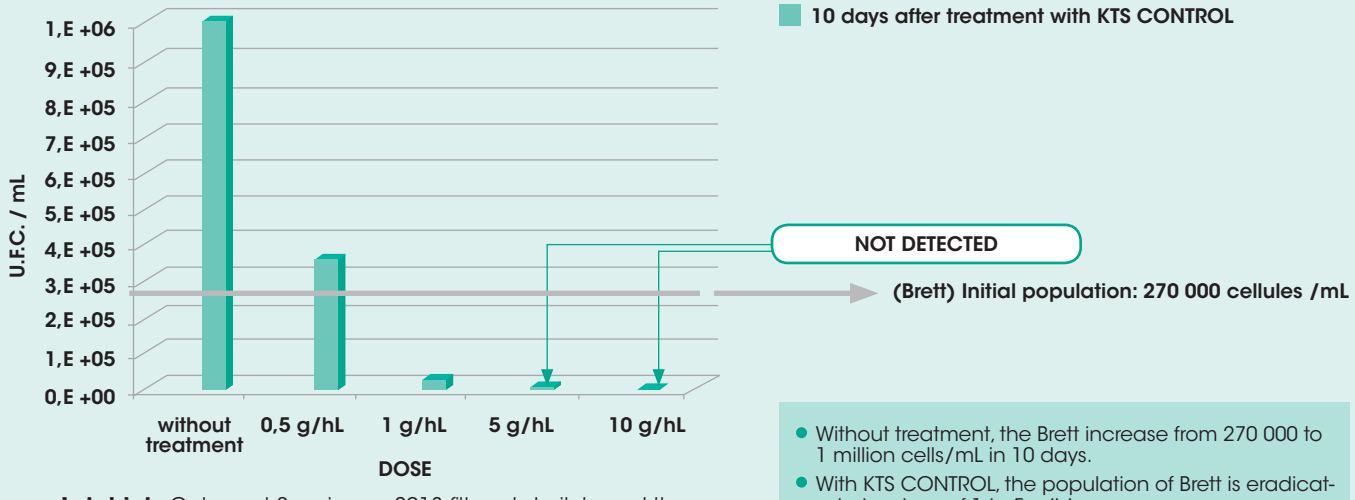


Figure 1: Monitoring of *Brettanomyces* population by quantitative PCR on a Merlot 2013 after addition of 10 g/hL **KTS CONTROL**

IMPACT OF ADDING VARIOUS DOSES OF KTS CONTROL TO *BRETTANOMYCES*



Lab trial: Cabernet Sauvignon 2013 filtered sterilely and then inoculated with a *Brettanomyces* yeast.

- Without treatment, the Brett increase from 270 000 to 1 million cells/mL in 10 days.
- With KTS CONTROL, the population of Brett is eradicated at a dose of 1 to 5 g/hL



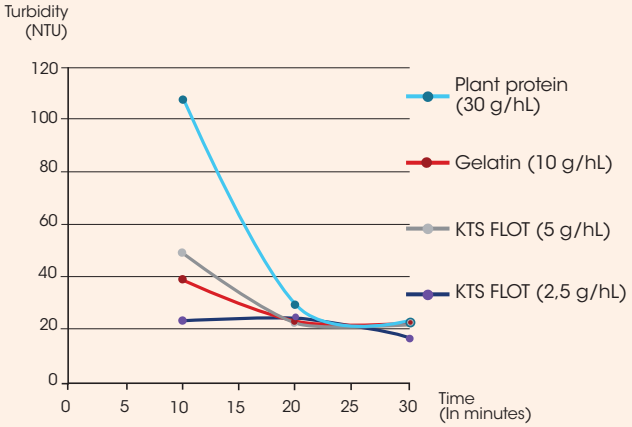
KTS FLOT

KTS FLOT is a next-generation product for the flotation of whites, rosés and reds resulting from thermovinification. It is composed of proteins and plant polysaccharides. **KTS FLOT** ensures fast, thorough clarification of musts with improved compaction of the cap. It also helps to protect against oxidation and refines the must before alcoholic fermentation.

Packaging: 20 L

Application rate: 2 to 10 cl/hL

Effect of flotation on a pinot d'Auxérois



To find out more
SEE OUR NEW WEBSITE
www.martinvialatte.com

HOW TO SELECT FINING AGENTS

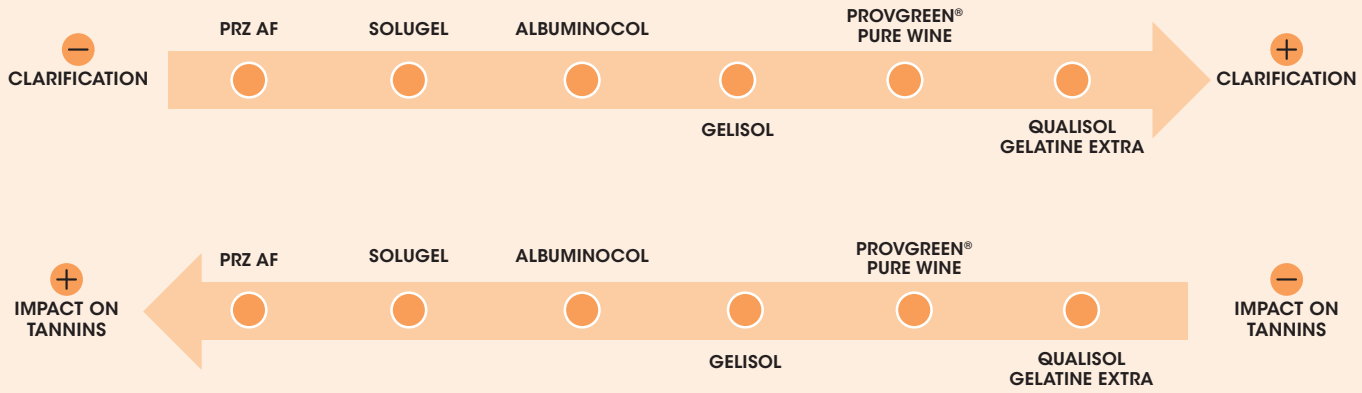
In terms of the objective

The action of gelatins depends on their molecular weight. Each gelatin has a clearly defined area of action. The more the gelatin is hydrolysed (low molecular weight), the more it reacts with tannins. In addition, tannins fined by gelatin are tannins with high molecular weight and that are especially astringent. On the other hand, gelatins that are only slightly hydrolysed (high molecular weight) are more effective with regard to clarification and act more gently on tannins.

As for plant proteins, their properties do not depend on their molecular weight but rather on the botanical origin of the protein and the way in which it was manufactured. This operating principle has enabled us to create a complete range of fining agents according to the type of wine to be treated and the objectives assigned.

TWO OBJECTIVES:

- **CLARIFICATION**
- **ORGANOLEPTIC ENHANCEMENT**





QALISOL

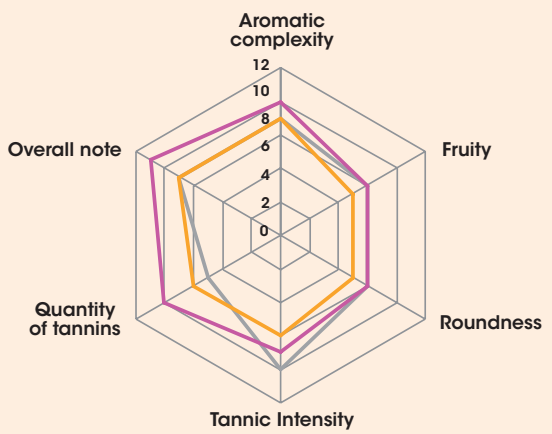
QALISOL is characterized by its great finesse: it softens the structure without unbalancing it in due respect with the aromatic characters and the typical nature of the wines. More specifically, **QALISOL** prevents drying notes sometimes encountered during fining with egg albumin. The traditional fining practice of great red wines is maintained without the inconvenience of an allergenic product. **QALISOL** prepares and facilitates filtration operations while preventing precipitation of colloidal coloring matter in bottles.

Packaging: 1 L, 5 L, 20 L

Application rate: 3 to 5 cL/hL

NON ALLERGENIC SUBSTITUTE TO EGG ALBUMIN

Bordeaux supérieur red 2007, aged 12 months in oak barrels
dose : 4 cL/hL



QALISOL softens the structure of great red wines without unbalancing them.

QALISOL prevents drying notes sometimes encountered with egg albumin.



PROVGREEN® PURE WINE

PROVGREEN® PURE WINE quickly flocculates particles suspended in wine while enabling optimum clarification. **PROVGREEN® PURE WINE** improves the organoleptic qualities of wines while eliminating aggressive and bitter tannins and providing more suppleness and roundness. Better aromatic expression of wines with perceived enhancing of fruit notes. **PROVGREEN® PURE WINE** provides well compacted deposits which is better than the animal fining basic treatment and participates in the good preparation of wines for pre-bottling filtration

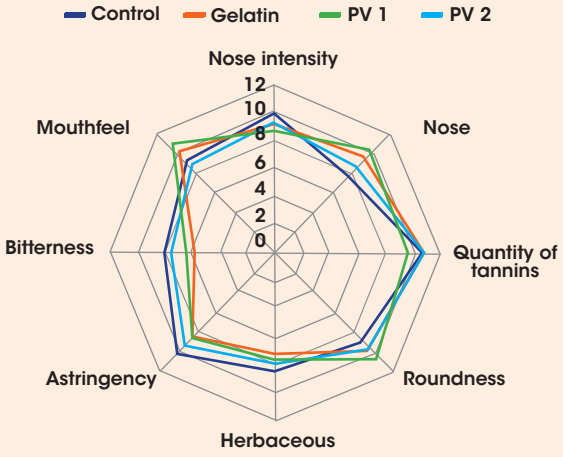
Packaging: 1 kg and 5 kg

Application rate: 5 to 15 g/hL



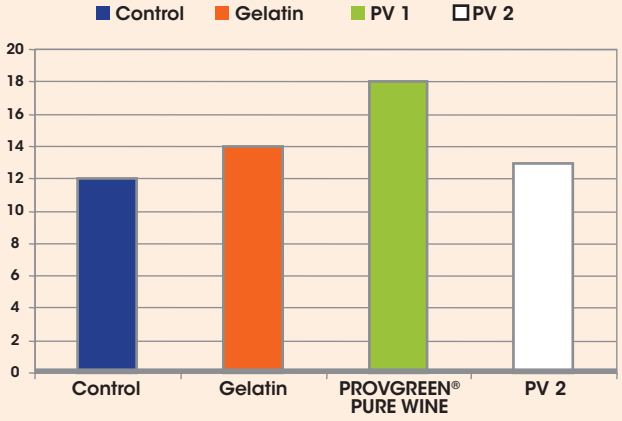
IMPROVED ORGANOLEPTIC QUALITIES

Results from a tasting of a Cabernet fined with **PROVGREEN® PURE WINE**



PV 1 = PROVGREEN® PURE WINE

WINE TASTERS PREFERENCES





GÉLISOL

GÉLISOL is an excellent fining agent for red wine with a medium to strong structure. It eliminates harsh tannins and highlights finesse, aromas and fruity and round profiles. **GÉLISOL** is a fining agent which is well adapted for the clarification and fining of rosé and white wines.

Packaging: 1 L, 5 L, 10 L, 20 L, 1000L /1 kg

Application rate: 4 to 15 cL/hL



PRZ AF

PRZ AF softens wines and reduces astringency. With wine presenting a noticeable astringency on attack to development or on the finish, **PRZ AF** removes herbaceous characters and eliminates harsh tannins. **PRZ AF** enables unbalanced wines to become harmonious and to obtain a very small volume of lees.

Packaging: 1 kg and 5 kg

Application rate: 30 to 150 g/hL



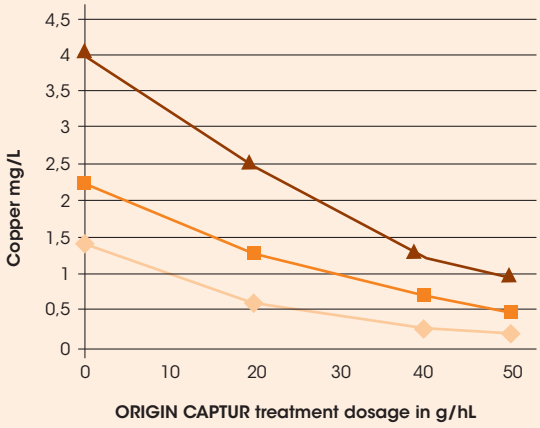
ORIGIN CAPTUR

ORIGIN CAPTUR is a next-generation fining agent developed in order to chelate heavy metals. It leads to a considerable reduction of their concentration in musts and wines. **ORIGIN CAPTUR** binds heavy metals, especially iron and copper, which can cause casse in bottled wines. **ORIGIN CAPTUR** thus effectively replaces traditional methods for removing iron and copper that use potassium ferrocyanide or calcium phytate.

Packaging: 1 kg

Application rate: 5 to 50 g/hL

Impact of ORIGIN CAPTUR at different doses on three wines with initial copper concentrations of 1.4 mg/L, 2.2 mg/L and 4 mg/L



The 50 g/hL dose (maximum legal dose) brings the copper concentration below 1 mg/L even in the wine with the highest initial concentration.



NEW

ORIGIN F-MAX

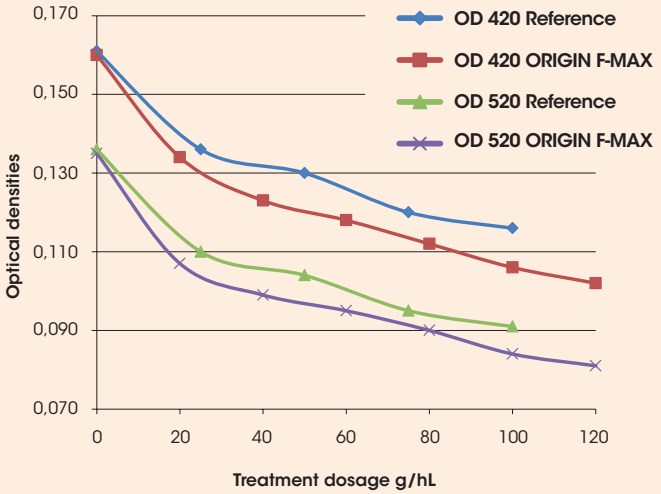
ORIGIN F-MAX is a next-generation fining agent made up of various active substances that act in synergy for the clarification and treatment of oxidation of white and rosé musts and wines. **ORIGIN F-MAX** is recommended for the treatment of first-pressing and second-pressing musts in traditional methods and to refresh mature wines.

Packaging: 1 kg and 5 kg

Application rate:

Still wines:	On free-run juice: 30 to 50 g/hL
	On pressed juice: 75 to 100 g/hL
Sparkling wines:	On first pressing juice: 30 to 50 g/hL
	On second pressing juice: 75 to 100 g/hL

OD 420 and OD 520



Impact of ORIGIN F-MAX on yellow (OD420) and red (OD520) colour.



CRISTALINE

CRISTALINE improves filterability of clogged wine especially derived from botryized grapes and eliminates bitterness and refines wines before the physical stabilization phases. It enables the total elimination of the finest particles. **CRISTALINE** is adapted for clarifying difficult wines. It improves clarity, filterability and organoleptic characteristics.

Packaging: 200 g, 1 kg

Application rate: 1 to 4 g/hL



SILISOL

SILISOL is a 30% solution of silica sol. It is used together with a protein fining agent to improve fining of white and rosé wines: it speeds up clarification, improves settling of lees, avoids over-fining, improves filterability and eliminates bitterness.

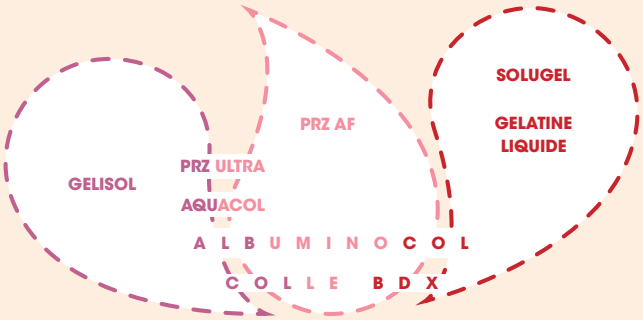
Packaging: 1 L, 5 L, 10 L, 20 L and 1000 L

Application rate: 1 to 10 cL/hL

FINING OF WINE

DRAFT FINING AGENTS

The draft fining agent is the first step during which the future personality of the wine appears. It softens the tannins and removes vegetal notes. The aromatic character of the wine is highlighted.



FINISHING FINING AGENTS

The finishing fining agent provides the final touch in the wine preparation process. It reinforces its finesse and highlights its organoleptic qualities.



PRODUCTS	ORIGIN	PROPERTIES	TYPE OF FINING	TYPE OF WINE
ALBUMINOCOL	Liquid gelatin	Fining CORRECTOR, **SHAPING** and **DISCOVERY** agent • Eliminates harsh tannins • Eliminates bitterness • Improves gustatory qualities	**DRAFT**	Young or press red wine
GELATINE LIQUIDE	Liquid gelatin	**SHAPING** fining agent • Eliminates astringent tannins • Softens • Respects the balance and structure of wine • Can be used in flotation	**DRAFT**	Structures red wine
SOLUGEL	Powder gelatin	**SHAPING** fining agent • Eliminates astringent tannins • Eliminates harsh tannins	**DRAFT**	Tannin red wine
PRZ AF	Protein and mineral fining agents	CORRECTOR fining agent • Eliminates bitterness and vegetal notes • Decreases astringency	**DRAFT**	Red wine from free-run juice or pressed juice
AQUACOL	Fish gelatin	CORRECTOR & **DISCOVERY** fining agent • Reveals roundness • Highlights finesse and aromas • Removes astringency	**DRAFT**	Quality red wine
OVOCOL	Egg albumin	**REFINING** fining agent • Ultimate fining agent at end of maturation • Softens • Refines structure	**FINISHING**	Red wine for ageing
QALISOL	Blend of 3 fish gelatins	**REFINING** & REVEALING fining agent • Ultimate fining agent • Respects aromatic and typical character of wine • Reveals suppleness • Alternative AF at OVCOL	**FINISHING**	Red wine for ageing
PROVGREEN® PURE WINE	Gluten free vegetal proteins	**PERFECTION** & **REFINING** fining agent • Clarifies red wines • Removes astringent tannins • Softens • Refines • Generates low rate of lees	**FINISHING**	Quality red wine, White wine and Rosé
GELATINE EXTRA	Hot soluble gelatin	PERFECTION fining agent • Refines • Softens • Can be used in flotation	**FINISHING**	Quality red wine
GELISOL	Gelatin	**REFINING** & **DISCOVERY** fining agent • Refines the structure • Can be used in flotation	**FINISHING**	Quality red wine, White wine and Rosé
CRISTALINE	Fish fining agent	**PERFECTION** fining agent • Provides brilliance • Eliminates bitterness	**FINISHING**	White wine and Rosé
SILISOL	Silica sol	Fining additive	**FINISHING / DRAFT**	White wine and Rosé

COLLOIDAL STABILISATION

Preparations based on Gum Arabic and SO_2

Gum arabic is a branched complex polysaccharide. Its two main applications are to stabilise colouring matter in red and rosé wines, and to provide roundness. Martin Vialatte pays special attention to the manufacture of these products based on gum arabic and SO_2. The selection of the raw materials is extremely important in order to ensure the quality of these preparations. We choose raw materials of uniform appearance, with little colour and as few impurities as possible. When dissolving it, a precise protocol is followed to ensure that the raw gum is fully dissolved and that the molecular structure of the polysaccharides is maintained, guaranteeing the product's effectiveness. After the gum is dissolved, the preparation is filtered several times so as to obtain a light-coloured, clear solution.

The Martin Vialatte range of preparations based on gum arabic and SO_2 covers the oenologist's every need: various qualities of colour stabilisation with **SUPERNEOSTABIL**, **SUPERFILTROSTABIL** and **FILTROSTABIL**, provision of roundness with **GOMIXEL**, and the dual properties of stabilisation and roundness with **DUOGOM MAX**.

NB: Products based on gum arabic and SO_2 are not a simple aqueous solution of gum arabic. Raw gum arabic and potassium metabisulfite are dissolved, react according to set parameters, and undergo a chemical process designed to purify and stabilise the raw materials and optimise their performance. The final product obtained is not just a simple aqueous solution of the added raw materials but rather a product with unique functional characteristics.



GOMIXEL

GOMIXEL is a preparation based on Seyal gum arabic and SO_2. It is recommended for colloidal stabilisation of white and rosé wines, and especially to provide roundness and sweetness to wines and enhance aromatic perception. Due to its specific composition, **GOMIXEL** has no effect on filtration, so that this preparation can be used before or after filtration depending on the winery process.

Packaging: 1 L, 5 L, 10 L, 20 L and 909 L

Application rate: 10 to 20 cL/hL

SUPERFILTROSTABIL

SUPERFILTROSTABIL is a preparation based on gum arabic and SO_2 that ensures stabilisation of colouring matter in red wines and of colloidal cloudiness in white wines. Thanks to the combination of the characteristics of Verek and Seyal, **SUPERFILTROSTABIL** is a versatile preparation that provides colloidal stabilisation in wines with moderate instability.

Packaging: 20 L, 1000 L

Application rate: 3 to 20 cL/hL

SUPERNEOSTABIL

SUPERNEOSTABIL is a preparation based on Seyal gum arabic and SO_2. It ensures the stabilisation of colouring matter in red wines, avoiding the formation of cloudiness and deposits of colouring matter in the bottle. **SUPERNEOSTABIL** provides standard security protection for wines that show no obvious risks of sensitivity to the cold.

Packaging: 20 L, 1000 L

Application rate: 5 to 20 cL/hL



FILTROSTABIL

FILTROSTABIL is a preparation based on Verek gum arabic and SO_2. It ensures the stabilisation of colouring matter in red wines, avoiding the formation of cloudiness and deposits of condensed colouring matter in the bottle. Due to its make-up, **FILTROSTABIL** is highly effective, enabling it to adapt to every case of wine stabilisation, even in the event of major colour instability.

Packaging: 1 L, 5 L, 10 L, 20 L, 60 L, 1000 L, 1 and 25 kg

Application rate: 3 to 20 cL/hL / 10 to 50 g/hL



DUOGOM MAX

DUOGOM MAX is a preparation based on Verek and Seyal gum arabic and SO_2. It is recommended for colloidal stabilisation and enhancement of roundness in red and rosé wines. **DUOGOM MAX** has been specially formulated to simplify the work of those winemakers who wish to stabilise their wine with regard to colloids and provide roundness and sweetness, all in one single stage. Its stabilising action can also be noticed at the organoleptic level, through enhanced aromatic intensity.

Packaging: 5 L, 20 L, 1000 L

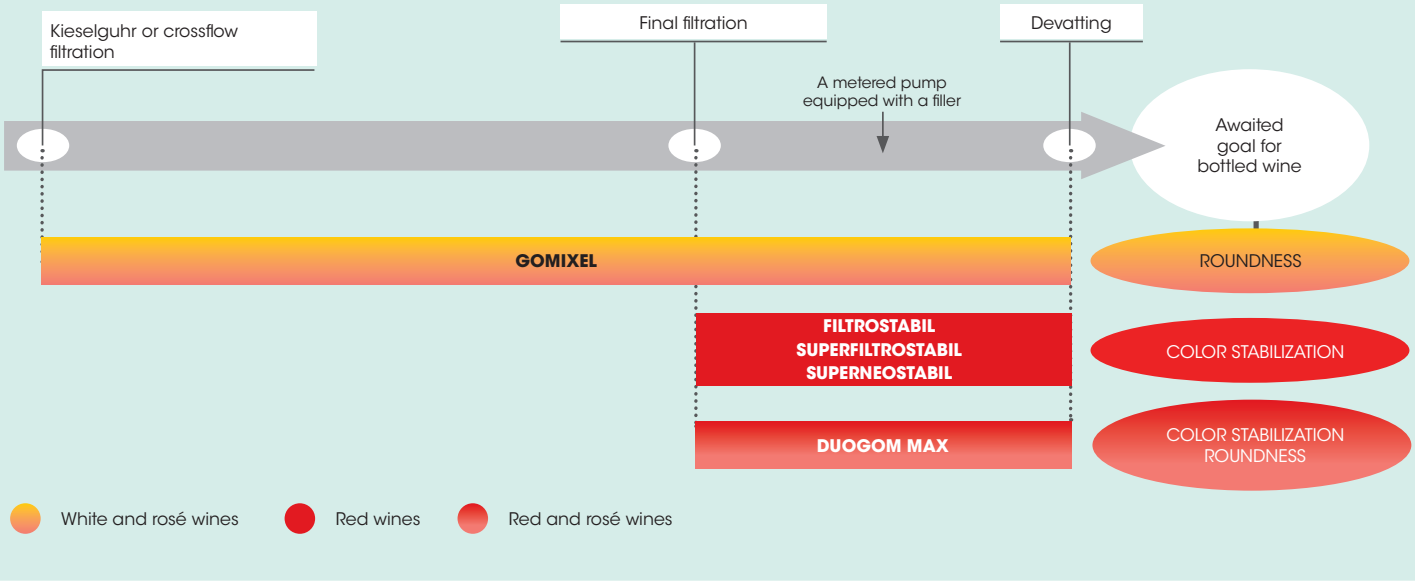
Application rate: 10 to 40 cL/hL

STABILIZING AGENTS

NAME	TYPE OF WINE	POSITIONING	CONCENTRATION g/L	DENSITY +/- 4 kg/m³	ORIGIN
SUPERNEOSTABIL		Standard stabilization for fast rotation wines	290	1100	Seyal
SUPERFILTROSTABIL		Good stabilization for all wines	290	1100	Seyal and Verek
FILTROSTABIL		Sustainable stabilization for high quality wines	290	1100	Verek
FILTROSTABIL POUDRE		Sustainable stabilization for high quality wines			Verek
DUOGOM MAX		Stabilizes and provides roundness	200	1100	Seyal and Verek
GOMIXEL		Provides roundness	200	1100	Seyal

NAME	COLOR STABILITY	ROUNDNESS IMPACT	TARTARIC STABILITY AND IRON CASSE
SUPERNEOSTABIL			
SUPERFILTROSTABIL			
FILTROSTABIL			
FILTROSTABIL POUDRE			
DUOGOM MAX			
GOMIXEL			

Optimize input of arabic gum prior to bottling



PROTEIN STABILIZATION

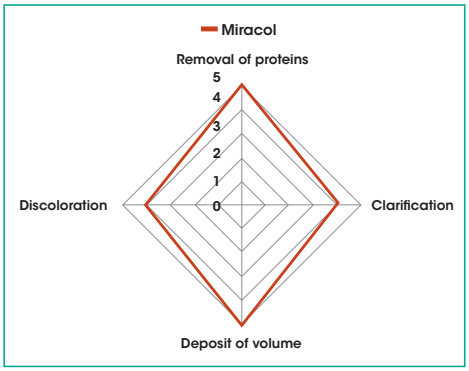
Bentonite

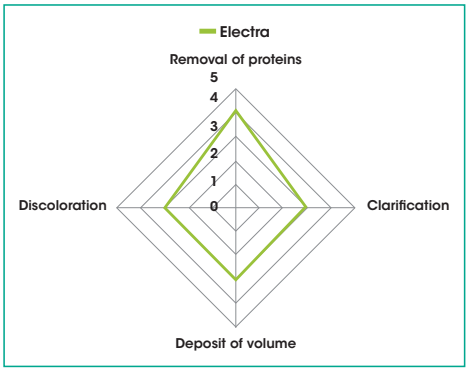
Bottling is the final step in wine-making. In that sense, wine preparation is crucial in order for the wine to be crystal clear and compeltely stable from a microbiological vantage point (avoid refermentations) and also from a colloidal vantage point (avoid tartaric, color or protein casse).
For this very particular step, Martin Vialatte has developed a specific bentonite product range to meet 2 objectives:

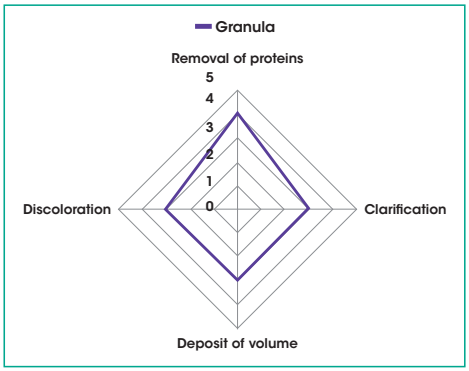
- Protein stabilization
- Clarification of wines having been subjected to protein fining

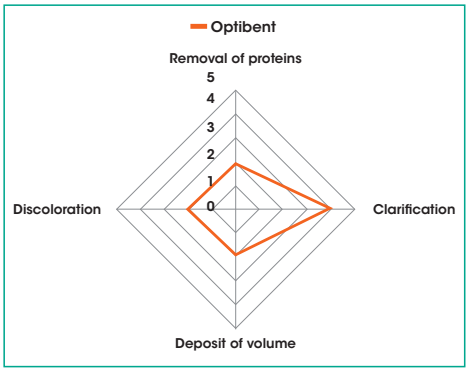
Some wine-makers look only for protein stabilization to minimize the organoleptic effects of fining with bentonite, others seek a compromise between protein stabilization and decrease treatment lees and even others look for a bentonite which ensures a good packing in their fining procedures. To respond to all these different needs Martin Vialatte has developed a bentonite product range to meet the requirements of bottlers.

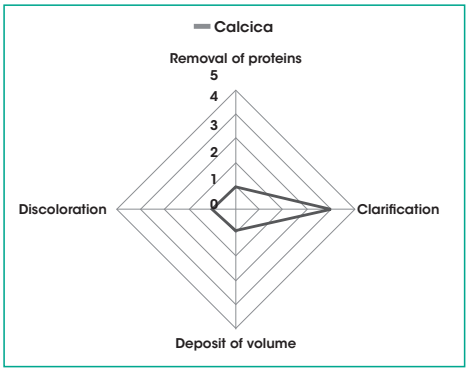
A summary of the properties of our bentonite product range classified on a scale of 1 to 5 with 0 corresponding to no effect and 5 to an extremely large effect are shown in the following graph.











NAME BENTONITE	ASPECT	CHARACTERISTICS	DOSAGE	PACKAGING
MIRACOL	Powder	Activated calcium bentonite. Very strong swelling capacity making bentonite very efficient with regard to unstable proteins. Heavy deposits compensated by low dosages used.	5 to 25 g/hL	1 kg, 25 kg
ELECTRA	Powder	Activated calcium bentonite. Strong swelling capacity making bentonite very efficient with regard to unstable proteins. Medium deposits.	20 to 100 g/hL	1 kg, 5 kg, 25 kg
GRANULA	Granulated	Activated calcium bentonite. Strong swelling capacity making bentonite very efficient with regard to unstable proteins. Medium deposits. Granulated form facilitates usage.	20 to 100 g/hL	1 kg, 5 kg, 25 kg
OPTIBENT	Powder	Activated calcium bentonite complex and natural calcium in order to obtain a good compromise between unstable protein elimination and volume of deposits.	20 to 100 g/hL	5 kg, 25 kg, 10 L, 1000 L
CALCICA	Powder	Natural calcium bentonite formulated specifically to obtain very low level of deposits.	20 to 150 g/hL	25 kg

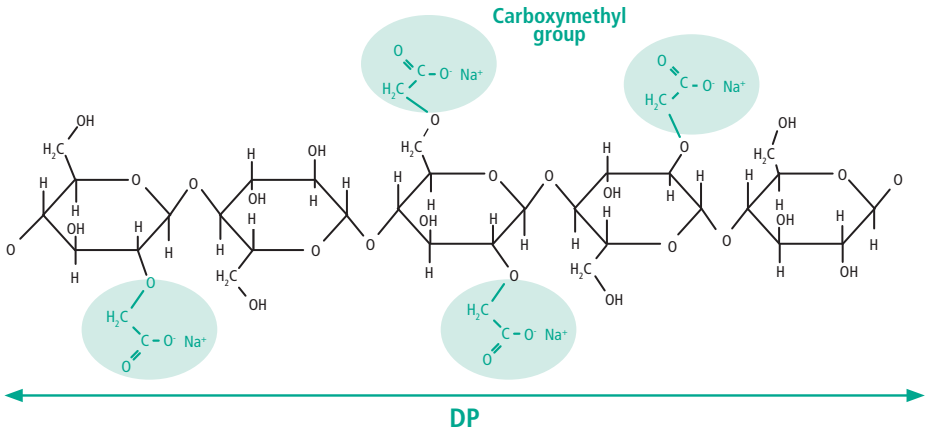
TARTRATE STABILISATION

Cellulose gums

Cellulose gum has many advantages regarding the tartrate stabilisation of wines. It provides long-lasting, effective stabilisation, it is cheap, and it is more environmentally friendly than other methods.

A few facts about cellulose gum:

- Also called CMC: carboxymethyl cellulose
- Used for the last 20 years in the food industry
- Shown to be harmless
- Natural origin for oenology: wood cellulose
- Authorised for tartrate stabilisation of wines at a maximum dosage of 10 g/hL (EU regulation)
- Japan has recently become one of the countries that accepts wines treated with CMC
- Stabilisation with regard to potassium bitartrate (no effect on calcium tartrate)



2 modes of action

- **Prevents nucleation of tartrate crystals**
- **Hinders growth of microcrystals of tartrate**

Characterised by:

- DP: degree of polymerization
- DS: degree of substitution (number of carboxyl groups / number of glucoses)



CRISTAB BV

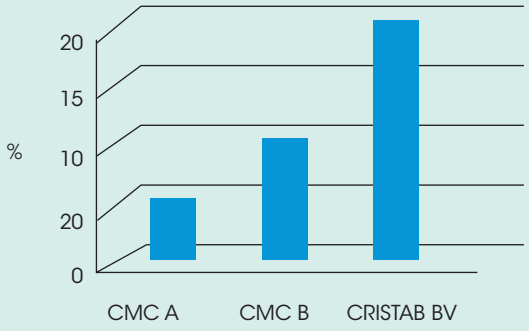
Low viscosity (20%)

CRISTAB BV is solution of cellulose gum (CMC) of 20% natural origin. It brings together low viscosity and high concentration, ensuring effective stabilisation of wines with regard to potassium bitartrate and ease of use.

Packaging: 5 L, 20 and 909 L

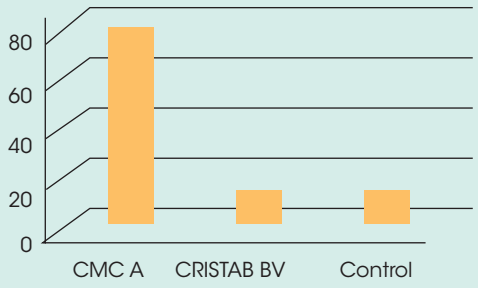
Application rate: 5 cL/hL

Concentration of the solution



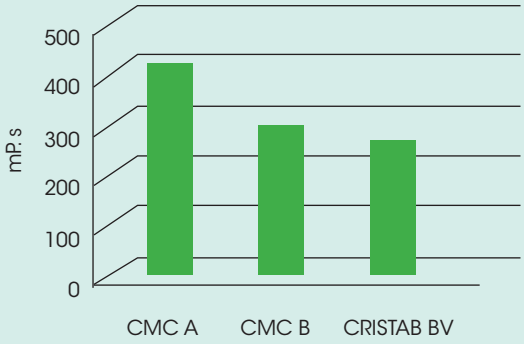
CRISTAB BV is 2 to 4 times more concentrated than other CMCs

Clogging index after addition to white wine



No effect on Clogging Index with CRISTAB BV

Viscosity of the solution



CRISTAB BV is less viscous than other CMCs

CRISTAB GC

CRISTAB GC is a cellulose gum (CMC) of natural origin in compliance with the Oenological Codex. **CRISTAB GC** stabilizes white wine, certain rosé wine and wine base to obtain sparkling wine with regard to potassium bitartrate. Fast and efficient over time regardless of storage temperature variations, **CRISTAB GC** acts as a colloid protector on the formation of crystals (nucleation) and on the possible growth of potassium bitartrate microcrystals found in wine. **CRISTAB GC** has no organoleptic impact.

Packaging: 5 L, 20 L, 1000 L / 1kg



PROTOCOL FOR THE USE OF CELLULOSE GUM

Example for 100hL of wine treated with a dose of 10 g/hL (20 cL/hL)

CRISTAB GC LIQUID

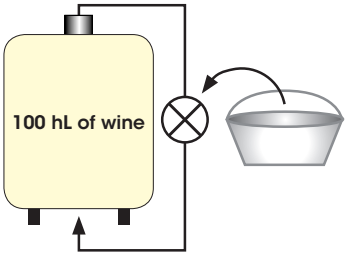
1 — Prepare 3 or 4 volumes of wine for 1 volume of cellulose gum



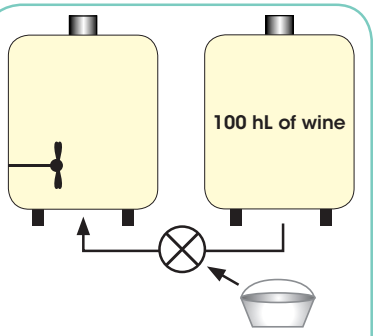
2 — Add the cellulose gum while stirring and continue to mix for 30 minutes



3 — Add the solution using a fining connector or DOSACOL, homogenize well



or



Be careful to homogenize correctly by transferring from one tank to another

PRELIMINARY SOLUBILIZATION — **INCORPORATION**

CRISTAB GC GRANULATE

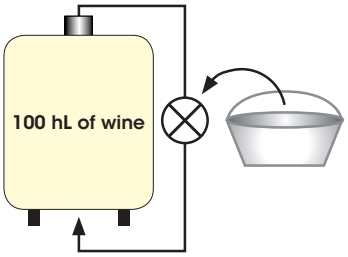
1 — Prepare 60 L of wine



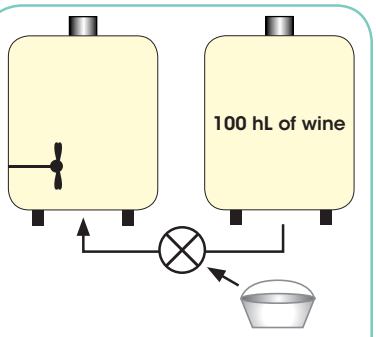
2 — Incorporate the quantity of cellulose gum while stirring



3 — Add the solution using a fining connector or DOSACOL, homogenize well



or



Be careful to homogenize correctly by transferring from one tank to another

For optimal mixing it is recommended to use a propeller (or pumping over for large volumes)



NEW

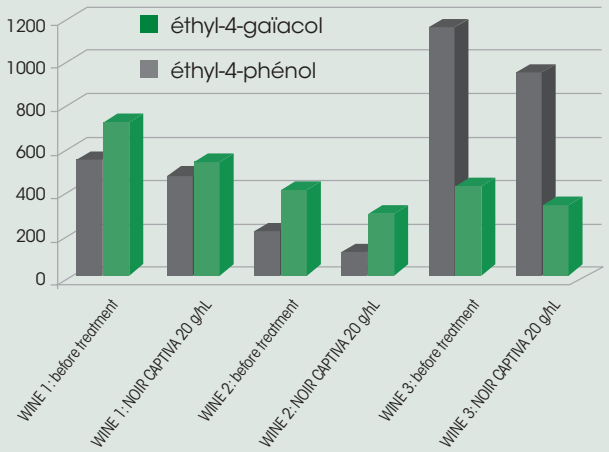
NOIR CAPTIVA

NOIR CAPTIVA is a powdered carbon of plant origin selected for the deodorisation of musts and wines. Thanks to its powerful adsorbent properties, **NOIR CAPTIVA** is especially effective with regard to certain defects in wines (Ochratoxin A, mustiness, etc).

Packaging: 1 kg, 5 kg

Dosage: 5 to 40 g/hL

IMPACT DE NOIR CAPTIVA SUR LES GOÛTS PHÉNOLÉS SUITE À UNE CONTAMINATION PAR *BRETTANOMYCES* SUR VINS ROUGES DU BEAUJOLAIS



To find out more
SEE OUR NEW WEBSITE
www.martinvialatte.com

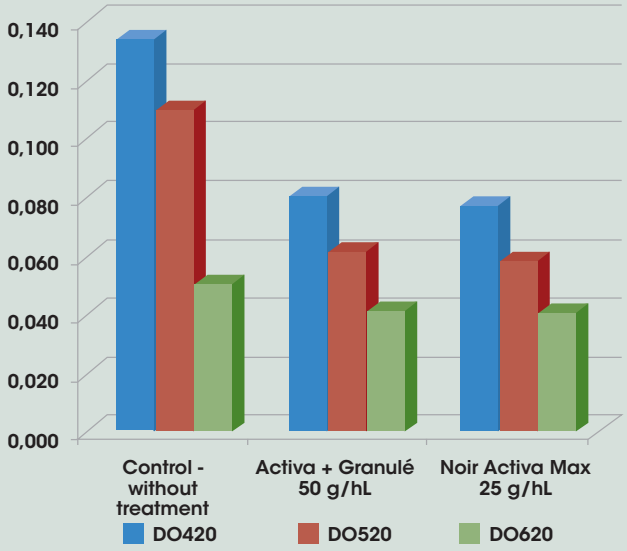
NOIR ACTIVA MAX

Hyper activated decolorizing charcoal in granulated form

Active charcoal results from carbonizing plant matter in order to provide it with a porous structure.
Pine is the raw material used for **NOIR ACTIVA MAX.**
The charcoal then undergoes activation (using phosphoric acid for decolorizing charcoals) which considerably increases its specific surface area.
Most decolorizing charcoals have a specific surface area around 1000 m^2/g which is quite large but the specific surface area of **NOIR ACTIVA MAX** is 1800 m^2/g which makes it highly effective.

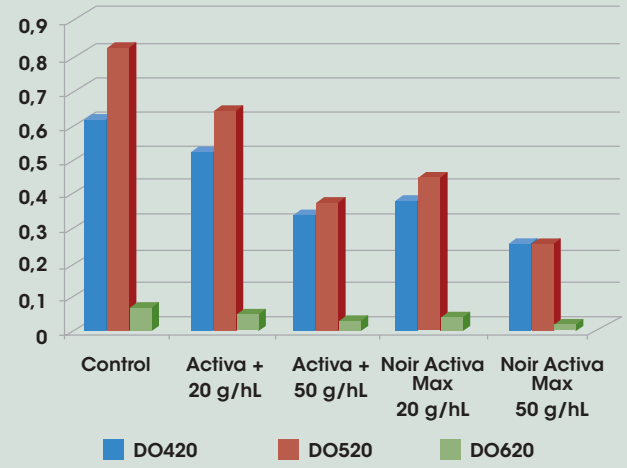
SOME RESULTS

Treatment of Syrah rosé wine from the Languedoc



25 g/hL of **NOIR ACTIVA MAX** is equivalent to 50 g/hL of **ACTIVA + GRANULÉ**

Treatment of press must of Provence in fermentation



Likewise in this case, 20 g/hL of **NOIR ACTIVA MAX** is almost as effective as 50 g/hL of **ACTIVA + GRANULÉ**

STRONG POINTS

NOIR ACTIVA MAX :

- Decreases dosage used
- Good quality for the money
- Its granulated form makes it an easy-to-use product

OENOLOGICAL CHARCOAL	APPLICATION	PACKAGING
NOIR ACTIVA MAX	Hyper activated decolorizing charcoal in granulated form	1 kg, 5 kg, 15 kg
NOIR ACTIVA + GRANULE	Decolorizing oenological charcoal Treatment against oxidation of musts Remove stains from musts and white wine	1 kg, 5 kg
NOIR ACTIVA + POUDRE		15 kg
NOIR ACTIVA + LIQUIDE		20 L, 1000 L
NOIR CAPTIVA	Désodorisant et décontamination des moûts et des vins blancs	1 kg, 5 kg
CARBINE T GRANULÉ	Desodorizing and decontaminating of musts and white wines Remove stains from musts and white wine Effective against geosmin	1 kg
CARBINE T POUDRE		5 kg

PVPP	APPLICATION	PACKAGING
PVPP	Softens red wines, preventive and curative treatment against oxidation of white wine	1 kg, 20 kg
POLY-V	PVPP - support elements Treatment of musts and wines against oxidation	10 kg

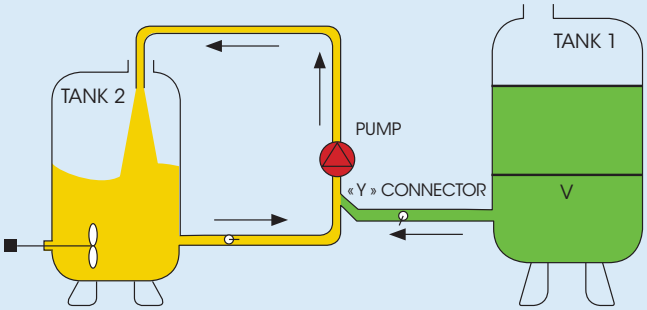
CARAMELS COLORANTS	APPLICATION	PACKAGING
CARAMEL KN	Renforces alcohol or wine based aperitifs Brown tinge	20 L, 1000 L
CARAMEL KGS	Golden tinge	20 L, 1000 L

OTHERS	APPLICATION	PACKAGING
ACIDE CITRIQUE (OENOCITRIL)	Citric acid monohydrate Stabilisation of wines	1 kg, 25 kg
CITRATE DE CUIVRE 2%	Prevention and treatment of reduction tastes	1 kg

ACIDITY CORRECTORS

NOM	APPLICATION	APPLICATION RATE	PACKAGING
DICALCIC	Balanced deacidification of wine by formation of a double salt		15 kg
ACIDE TARTRIQUE (OENOTARTRIL)	L (+) tartaric acid Regulated acidification	Depending on the acidification required	1 kg 5 kg
ACIDE MALIQUE (OENOMALIL)	DL-malic acid Regulated acidification		1 kg 5 kg 25 kg
ACIDE LACTIQUE (OENOLACTIL)	L lactic acid Regulated acidification Liquid formula		5 kg 25 kg
CARBONATE DE POTASSIUM CARBONATE DE CALCIUM	Desacidification of musts and wines	Depending on the deacidification required	1 kg 5 kg 25 kg 500 g

DEACIDIFICATION BY PROCEDURE



INSTALLATION DIAGRAM

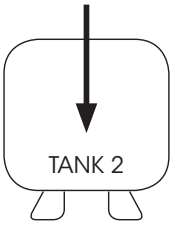
DICALCIC

This deacidification is centered on "too acidic" wine. To determine this volume (V) and the **DICALCIC** add "custom made formula", and contact our laboratory. A step-by-step implementation presentation plan is available upon request.

ACIDIC WINE DEACIDIFIED WINE

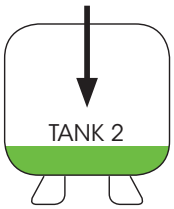
IMPLEMENTATION, STEP-BY-STEP

1° 10% of V (acidic wine)

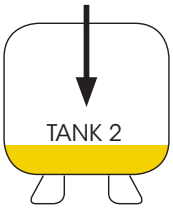


2° Stir the wine and **sprinkle the DICALCIC**

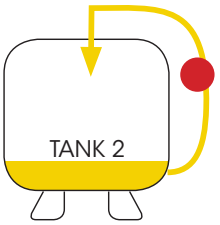
Note: slow down adding the **DICALCIC** in the event of excess foaming



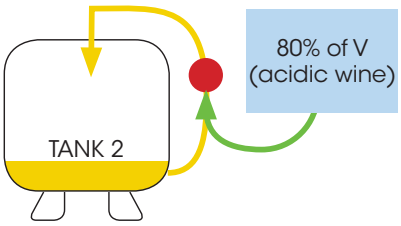
3° Stir until **DICALCIC** is completely dissolved



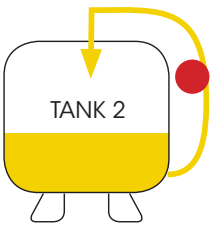
4° Activate high capacity pump (100 to 200 hL/h)



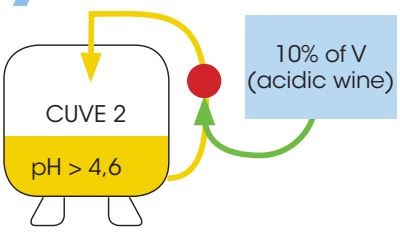
5° Slowly incorporate acidic wine (duration of operation: 2 hours)



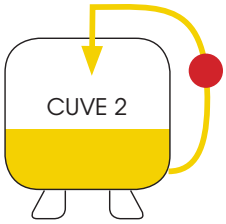
6° Verify pH level (around 5)



7° Incorporate more slowly



8° Stir the treated wine until the end of the day



9° **Filtration** of treated wine (tank 2) and **reincorporation** into rest of wine (tank 1)

COMMERCIAL NAME	APPLICATION	DOSAGE	PACKAGING
BAKTOL P	Pure potassium metabisulphite Anti-septic - Anti-oxidant Anti-oxidase	Depending on desired sulphiting	1 kg 25 kg

BAKTOL — Potassium bisulphite solution Antiseptic - Antioxidant - Antioxidase

CONCENTRATION g/L	Application rate	1 liter	5 liters	10 liters	20 liters	1 000 liters
50	Depending on desired sulphiting		✓	✓		
80					✓	✓
100		✓	✓	✓	✓	✓
150		✓	✓	✓	✓	✓
180				✓	✓	✓
200				✓		✓

SULFOSSOL — Ammonium bisulphite solution Sulphiting of musts activation of fermentations

CONCENTRATION g/L	Application rate	1 liter	5 liters	10 liters	20 liters	120 liters	1 000 liters
50	Depending on desired sulphiting		✓	✓			
100			✓	✓	✓	✓	✓
150		✓	✓	✓		✓	✓
200		✓	✓	✓	✓		✓
400			✓		✓		✓
600					✓		✓

COMMERCIAL NAME	APPLICATION	DOSAGE	PACKAGING
BAKTOSSOL 225	Potassium and ammonium bisulphite Antiseptic - Cleaning barrels	Depending on desired sulphiting	1 L · 5 L · 10 L
ACETOX VIN ROUGE	Potassium metabisulphite - tannin Conservation of red wines		1 kg
ACETOX VIN BLANC	Potassium metabisulphite - tannin Conservation of white wines		1 kg
EFFERBAKTOL 2 AND 5 GRANULES	Potassium metabisulphite effervescent granules at dosages of 2 g of SO_2 pure dosages of 5 g of pure SO_2		40 sachets/box 25 sachets/box
EFFERBAKTOL 50 GRANULES	Potassium metabisulphite effervescent granules at dosages of 50 g of pure SO_2 / sachet		125 g
EFFERBAKTOL 100 GRANULES	Potassium metabisulphite effervescent granules at dosages of 100 g of pure SO_2 / sachet		250 g
EFFERBAKTOL 125 GRANULES	Effervescent granules of potassium metabisulfite, doses of 125 g of pure SO_2 / sachet		300 g
EFFERBAKTOL 400 GRANULES	Potassium metabisulphite effervescent granules at dosages of 400 g of pure SO_2 / sachet		1 kg
BACTOLYSE LYSOZYME	Pure lysozyme preparation	10 to 50 g/hL	500 g
SORBATE DE POTASSIUM (STABIFLOR)	Potassium sorbate Avoid re-fermentations of wines containing sugar, prevent formation of «flowers»	20 to 26 g/hL	25 kg
ACIDE ASCORBIQUE (OENOSCORBOL)	L (+) ascorbic acid Anti-oxidant	On grapes: 2 to 5 g/100 kg On wine: 10 g/hL At disgorging: 6 to 8 g for 100 bottles	500 g · 1 kg · 5 kg · 25 kg
SULFISCORBATE POUDRE	Potassium metabisulphite / ascorbic acid	On grapes: 2 to 5 g/100 kg On wine: 10 g/hL At disgorging: 6 to 8 g for 100 bottles	500 g
FRUCTIDOR	Citric acid - Ascorbic acid Prevention of oxidation and iron casse	On grapes: 2 to 5 g/100 kg On wine: 10 g/hL At disgorging: 6 to 8 g for 100 bottles	1 kg

KOSHER PRODUCTS LIST

Some products in the MARTIN VIALATTE range can be certified as KOSHER depending on the production batch.
Our Quality department will be able to inform you about the availability of such products.

PRODUCTS	PACKAGING
ACIDE ASCORBIQUE	25 kg
ACIDE METATARTRIQUE V40	1 kg, 25 kg
ACIDE TARTRIQUE	25 kg
ACTIVA + GRANULÉ	1 kg, 5 kg, 17,5 kg
ACTIVA + POUDRE	17,5 kg
BAKTOL 180	20 L, 1000 L
BAKTOL POUDRE	1 kg, 25 kg
BACTOL P	25 kg
BACTOLYSE LYSOZYME	500 g
BENTONITE CALCICA	25 kg
BICARBONATE DE POTASSIUM	25 kg
BITARTRATE DE POTASSIUM	25 kg
CARBINE T GRANULÉ	1 kg
CARBINE T POUDRE	5 kg
FILTROSTABIL POUDRE	25 kg
PHOSPHATE DIAMMONIQUE	25 kg
PVPP	20 kg
TANIGAL	25 kg
VIAZYM® CLARIF PLUS	100 mL

ISO 22000 CERTIFICATION

MARTIN VIALATTE has for many years followed a quality approach based on recognised standards. After being certified ISO 9001 in 1999, a quality management system, **MARTIN VIALATTE** decided in 2009 to step up to ISO 22000, a food safety management system in the food chain. **MARTIN VIALATTE**'s goal was to better meet its customers' expectations with regard to food safety, by demonstrating its control of potential hazards and by permanently providing safe, satisfactory products. As a result, production, packaging and storage of **MARTIN VIALATTE** oenological products are now certified **ISO 22000.**

QUALITY - SAFETY - ENVIRONMENT AT THE HEART OF OUR COMMITMENT

A genuinely proactive policy drives our strong commitment:

- renewal of our **ISO 22000 certification** since it was first obtained in 2009
- achievement of Organic certification by **ECOCERT** for our organic products
- up-to-date investment in production, logistics and IT to optimise conditions of hygiene, preservation and traceability

OUR TEAMS' TRAINING AND INFORMATION

All the men and women who make up our teams, and especially those working in production, are trained in strict rules of hygiene. In line with **ISO 22000** requirements, we provide them with information about any safety issues that may arise. Our system is also regularly assessed and updated with the collaboration and involvement of all our staff

TOTAL TRACEABILITY

MARTIN VIALATTE oenological products are managed with total traceability, made possible by batch numbering of finished products and raw materials, and by the power of our ERP software package with regard to traceability. The batch number shown on each product enables in-depth traceability of the entire process: the raw materials used for production, suppliers, production conditions, transit warehouses, etc.
Batch numbering of raw materials also enables the traceability of products manufactured from them to be controlled, right down to the end customer.

To find out more
SEE OUR NEW WEBSITE
www.martinvialatte.com

afaq ISO 22000 Sécurité des aliments
AFNOR CERTIFICATION
Certification pour la production, le conditionnement et le stockage des produits oenologiques

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