

# ENARTIS PRODUCTS HARVEST PHASE

	ZY	

- 8 YEASTNUTRIENTS
- <u>12</u> **YEAST**
- 18 FERMENTATION TANNINS
- 22 YEAST POLYSACCHARIDES

24 MALOLACTIC BACTERIA

26 OAK ALTERNATIVES

**30** FINING AGENTS

**34** STABILISING AGENTS

**36** SULPHITING AGENTS

## enartis



ENARTIS HAS DEVELOPED IMPORTANT SYNERGIES OVER THE YEARS WITH WINE GROWERS AND PRODUCERS IN COUNTRIES WITH STRONG WINEMAKING TRADITIONS.



## 200+ EMPLOYEES

IN THE WORLD TO MEET THE NEEDS OF WINERIES OF ALL SIZES.



### **50 COUNTRIES**

ENARTIS PRESENCE AROUND THE WORLD.



## 10 000 PRODUCERS

ENARTIS PROVIDES MORE THAN 10 000 PRODUCERS WITH INNOVATIVE SOLUTIONS AND SAFE PRODUCTS.



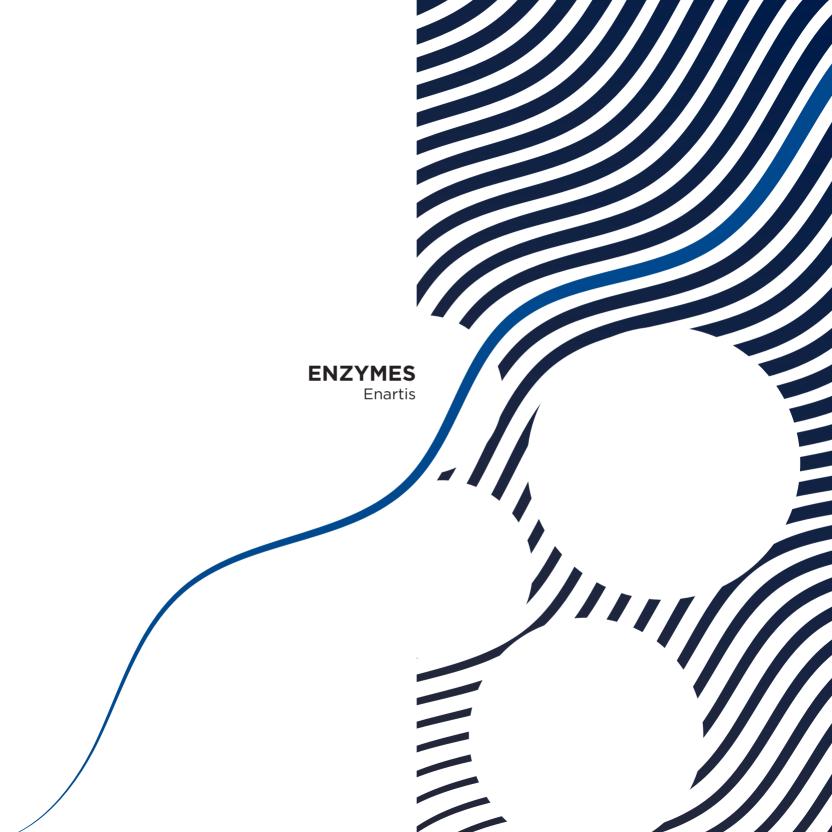
# 300 SPECIALISED PRODUCTS

THAT FULLY EXPRESS AND EXALT THE CHARACTER OF WINES.



### **FSSC 22000**

ENARTIS HAS RECEIVED THE
INTERNATIONAL FOOD SAFETY
CERTIFICATION AND WORKS IN
COMPLIANCE WITH THE MOST
STRINGENT OENOLOGICAL
AND FOOD QUALITY REGULATIONS.





#### WHITE GRAPES

#### **ZYM 1000 S**

An extremely pure and active powdered pectolytic enzyme preparation for the cold settling of must. Enartis Zym 1000 S carries out a hydrolytic action on grape pectins, accelerating juice clarification.

#### **ZYM QUICK**

Pectolytic enzyme in liquid form specific for flotation. Very quick in hydrolysing pectins. It shortens the whole process of flotation and produces a small amount of lees.

#### **ZYM RS**

Pectolytic enzyme in liquid form for fast juice clarification. Very effective at low pH, low temperature (8-10°C) and for resolving fining problems in juices that are notoriously difficult to clarify.

#### ZYM RS(P)

Micro-granulated enzyme for juice settling, also at low pH and temperatures.

#### ZYM RS<sub>4</sub>F

Pectolytic enzyme in liquid form recommended for flotation in batch and for flotation of juices with low solid content

#### **7YM FXTRA**

Liquid enzyme for white grape maceration. It increases the press yield and the extraction of aromatic precursors.

#### **ZYM AROM MP**

Micro-granulated enzyme for grape maceration. It is recommended in the production of fruity wines, rich in primary aromas. The secondary protease activity assists in reducing bentonite fining.

#### ZYM RIVELA

Micro-granulated enzyme with pectolitic and ß-glycosidase activities. It can be used during grape maceration to increase the expression of primary aromas.

#### **RED GRAPES**

#### **ZYM COLOR**

Powder enzyme for red grape maceration. It accelerates and intensifies the extraction of anthocyanins and tannins to produce wines with improved structure and colour intensity.

#### **ZYM COLOR PLUS**

Micro-granulated maceration enzyme containing a secondary protease activity that degrades proteins and decreases their ability to precipitate tannins. More tannins in solution is equal to improved colour stability.

#### **OTHER APPLICATIONS**

#### ZYM ELEVAGE

Micro-granulated preparation with pectolitic and glucanase activity. It accelerates mannoproteins extraction during ageing on fine lees and improves filterability of wines obtained from mouldy grapes.

#### **ZYM LYSO**

Lysozyme in micro-granulated form.

Enzymes are biological catalysts of reactions and naturally present in all living systems. Enzymes are essential for improving press yield, clarification, flotation, wine filterability, aroma and polyphenol extraction, as well as enhancing aromatic expression, improving mouthfeel, contributing to protein stability and helping to stabilise colour.



#### **YEAST NUTRIENTS**

#### NUTRIFERM ENERGY

Autolysed yeast and thiamine-based nutrient. It provides all the nutritional factors that are essential to reinforce yeast fermentation ability and to stimulate the production of compounds such as glycerol, polysaccharides and esters.

#### **NUTRIFERM AROM**

Nutrient entirely of organic origin to increase the aromatic complexity of the wine.

#### **NUTRIFERM AROM PLUS**

For a significant increase of wine aroma intensity. This autolysed yeast- and thiamine-based nutrient provides high quantities of specific amino acids that can be used as precursors for the synthesis of aromatic compounds.

#### **NUTRIFERM START**

Nutrient made of DAP, thiamine and cellulose. It stimulates yeast growth and detoxifies the juice.

#### **NUTRIFERM VIT**

Ammonium sulphate, ammonium phosphate dibasic and thiamine for yeast basic nitrogen nutrition.

#### **NUTRIFERM VIT FLO**

Ammonium phosphate dibasic and thiamine for yeast basic nitrogen nutrition.

#### **NUTRIFERM SPECIAL**

Complete nutrient containing organic and inorganic nitrogen, thiamine and purified cell walls. It provides all the essential nutritional factors that are needed for a reliable and complete fermentation.

#### NUTRIFERM ADVANCE

Nutrient specifically designed for providing nitrogen, sterols and fatty acids at 1/3 sugar depletion. Improves yeast alcohol tolerance, exerts a detoxifying action, prevents off-flavours and sluggish fermentation.

#### **NUTRIFERM GREEN NUTRIENTE**



Nutritional supplement made of organic certified yeast hulls, produced in compliance with the EU Regulation.

#### **NUTRIFERM NO STOP**

Inactivated yeast rich in sterols and long-chain fatty acids. Used mid-fermentation to improve yeast membrane integrity and fermentation conditions to prevent stuck or lagging ferments.

#### NUTRIFERM CONTROL

Inactivated yeast for juice detoxification.

#### **NUTRIFERM GRADUAL RELEASE**

The easy and safe alternative to nitrogen addition at 1/3 fermentation. This blend of DAP and tannins is contained in a special bag that gradually releases its content during fermentation and eliminates the need to supplement the ferment with nutrients, reducing time and labour.

Understanding the nutritional requirements of yeast is fundamental to accomplishing successful fermentations and preventing stuck fermentations. Managing nutrient requirements allows for regular and complete fermentations, as well as minimising sulphur compound production, such as  $\rm H_2S$ , and enhancing sensory qualities. Enartis recommends a two-step nutrient addition: providing amino acids and micro-nutrients at inoculation and inorganic nitrogen with survival factors at 1/3 sugar depletion.



## ENARTIS NUTRIENTS AND FERMENTATION AIDS: MAIN FEATURES

	APPLICATION	ORGAWIC NIROGEN	MORGAMIC	AROMATIC PRECURSORS	LOWG CHAW	STEROUS	MINERALS	VITAMINS	ADSORPTIVE EFFECT	Milling OF ADMION	PECOMMENDED DOSAGE
AROM PLUS	Supply of precursors for the synthesis of fermentation aromas	****		***	***	***	***	***	٨	Yeast inoculation	30 g/hL
AROM	Supply of precursors for the synthesis of fermentation aromas	***		***	***	***	***	***	•	Yeast inoculation	30 g/hL
ENERGY	Reinforce fermentation capacity of yeast	***		***	***	***	***	***	**	Yeast inoculation	15 g/hL
SPECIAL	Balanced and complete nutrition	**	<b>♦ ♦ ♦</b> (DAP)	•	***	***	**	**	**	Yeast inoculation	30 g/hL
VIT	Basic nitrogen nutrition		***					**		Within 24 hours after yeast inoculation	30 g/hL
VIT FLO	Basic nitrogen nutrition		(DAP)					**		Within 24 hours after yeast inoculation	30 g/hL
START	Basic nitrogen nutrition and juice detoxification		<b>A A A A</b> (DAP)					**	***	Within 24 hours after yeast inoculation	30 g/hL
ADVANCE	Ensure complete and clean fermentation		<b>♦ ♦ ♦</b> (DAP)		***	***	**	***	****	1/3 sugar depletion	30 g/hL
GRADUAL RELEASE	Ensure complete fermentation		<b>♦ ♦ ♦</b> (DAP)							In the frementation tank, before filling	20 g/hL
NO STOP	Prevent and treat stuck fermentation	٨			***	***	**	***	***	From 1/2 sugar depletion. Sluggish and stuck fermentation.	30 g/hL
CONTROL	Juice detoxification								***	Yeast inoculation. Sluggish and stuck fermentation.	30 g/hL



YEAST NUTRIENTS Enartis

#### METHOD TO RE-START STUCK FERMENTATION

Example for 10,000 I (100 hL)

#### 1 - PRE-TREATMENT OF THE STUCK WINE TO BE DONE 24 HOURS BEFORE RE-INOCULATION

- 1. Rack-off.
- Add 1.5 kg (15 g/hL) of Enartis Stab Micro
   M and 100 g (1 g/hL) of sulphur dioxide to reduce microbial contamination.
- **3.** Add 1.5 kg (15 g/hL) of **Nutriferm Control** to remove short-chain fatty acids and pesticide residues which may act as fermentation inhibitors. Add 500 g (5 g/hL) of **Bentolit Super** to help lees compaction.
- **4.** After 24 hours, rack and add 3 kg (30 g/hL) of **Nutriferm No Stop**.

#### 2 - RE-START OF STUCK FERMENTATION

#### **PHASE 1: Preparation of the starter**

In a sanitised tank able to contain all the volume of stuck wine, prepare a solution made up as follows:

- 250 L of stuck wine (2.5% of the total volume of wine to be treated).
- 250 L of water (equal to the volume of wine to be diluted).
- 1.5 kg (15 g/hL) of Nutriferm Energy.
- Adjust the sugar content of the wine/ water mixture up to 50 g/L (5°Brix) by adding concentrated juice or sugar.
- Maintain the temperature at 20-23°C.

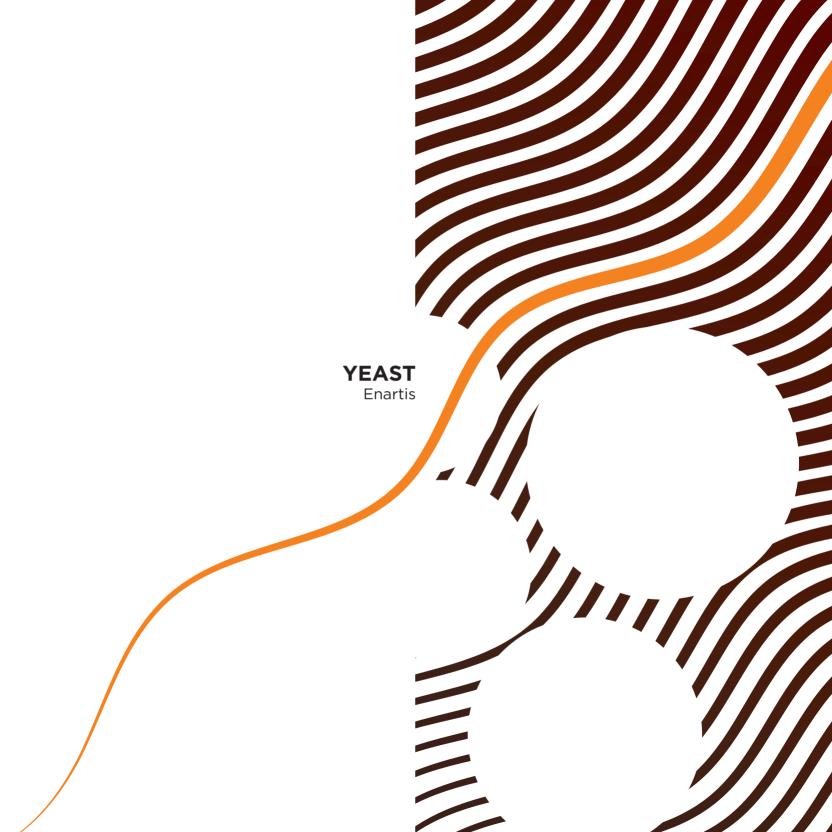
PHASE 2: Rehydration of active dry yeast Rehydrate 4 kg (40 g/hL) of yeast Enartis Ferm EZFerm 44 in 40 L of clean water at 35-38°C. Wait 20 minutes.

## PHASE 3: Start of fermentation and addition of the stuck wine

- Add the rehydrated yeast to the wine/ water mix and maintain the temperature at 21-24°C. Note: Avoid cold shock! The temperature difference between the yeast suspension and the wine/water solution must be less than 10°C.
- Monitor the sugar level of the starter.
   Attention: never let the sugar drop to zero.
- When the sugar level has dropped by half (<2.5°Brix), add 20 hL of stuck wine (equal to 20% of the total volume of stuck wine)
   + 500 g of Nutriferm Advance (25 g per 20 hL of stuck wine) to the starter.
- When the sugar has dropped by half, add another batch of 20 hL of stuck wine (equal to 20% of the total volume of stuck wine).
- Repeat the operation described in the previous point (addition of the remaining 60 hL of stuck wine in fractions of 20 hL each) until the mass exhaustion. At every step, check that the temperature difference between the starter and stuck wine is lower than 10°C.

PRODUCT	QUANTITY (kg)
ENARTIS STAB MICRO I	M 1.5
NUTRIFERM CONTROL	L 1.5
BENTOLIT SUPER	0.5
NUTRIFERM NO STOP	3
NUTRIFERM ENERGY	1.5
ENARTIS FERM EZFERM	44 4
NUTRIFERM ADVANCE	0.5





#### WHITE WINE YEAST

#### **FERM AROMA WHITE**

Thanks to this yeast's ability to produce esters and release thiols, it can be successfully used in the fermentation of both neutral and thiolic varieties.

#### **FERM ES 123**

Blend of two strains with synergistic fermentative and oenological features. It produces complex and intense aromas of pear, flowers and citrus.

#### **FERM ES 181**

Neutral, terpenic or thiolic varieties, it never goes wrong! This multifaceted strain has a high alcohol tolerance, low nitrogen demand, and always produces clean wines with intense aromas of white and tropical fruit.

#### **FERM PERLAGE**

Strong fermenter that can withstand extreme conditions of pH, temperature and pressure. It respects varietal characteristics and terroir. Suitable for sparkling wine production.

#### **FERM Q CITRUS**

For wines with very intense and distinguished notes of citrus (grapefruit), tropical fruit (guava, passion fruit, pineapple) and floral notes (jasmine, citrus blossom).

#### FERM Q9

Strain recently selected from Sauvignon grapes. It has the capability of revealing the typical tropical, citrus aroma of thiols as well as the mineral, smoky character coming from other minor sulphur precursors.

#### **FERM TOP ESSENCE**

Best results when used on white wines with low primary aromas. This strain enhances the aromatic expression of fresh fruit.

#### FERM VINTAGE WHITE

Moderate and steady fermenter, producer of significant quantity of polysaccharides, respects varietal character. Highly recommended for barrel fermentation and the production of quality white wines.

One of the most important requirement a yeast must possess it the ability to ensure a healthy and complete fermentation, as this is the first step to create a quality wine. The knowledge and understanding of microbial characteristics in addition to the practical experience gained over many years, has allowed us to understand the needs of the market, and to suggest the application of each yeast where it can express its quality at the best, meeting winemaker's expectations.



#### **RED WINE YEAST**

#### FERM AMR-1

Yeast selected for the production of Amarone wine. Used during extreme conditions such as high sugar concentration, low pH and low temperature, it ferments to dryness, producing big wines with elegant fruit aromas.

#### **ENARTIS FERM D20**

Isolated in California for the production of highend red wines intended to be aged. It tolerates high fermentation temperatures, promotes extraction of phenolic compounds, and reduces the perception of green notes.

#### FERM ES 401

Yeast for rosé, young and medium-aged red wines. It enhances the fruity aroma without overshadowing the varietal feature. Partially demalicant.

#### FERM ES 454

For the production of quality reds. Best results are obtained when fermented on good quality red grapes, and it enhances mouthfeel and fruity characters.

#### **FERM ES 488**

Produces intense black fruit and spicy notes, which are further enhanced when used in conjunction with yeast derivatives rich in cysteine or glutathione (Enartis Pro Blanco).

#### **FERM PERLAGE FRUITY**

Aromatic strain for the production of attractive, fresh, fruity wines. During the autolysis, it releases a good quantity of mannoproteins that help to improve the sensory. Suitable for sparkling wine production.

#### FERM Q5

Strain for the production of high-quality red wines destined for barrel ageing. It helps with the expression of varietal red fruit aroma and the production of deep-coloured and structured wines.

#### FERM Q7

High alcohol tolerant strain, recommended for fermenting grapes grown in hot climates or in vintages affected by drought. It helps to revitalise the aromas by masking overripe fruit notes.

#### **FERM RED FRUIT**

Popular strain for the production of rosé and young-medium aged reds characterised by intense red fruit and violet aromas with significant quantities of glycerol and polysaccharides.

#### **FERM VINTAGE RED**

Moderate and steady fermenter, producer of a great quantity of glycerol and polysaccharides. This strain is recommended for the production of varietal red wines destined for ageing.

#### **FERM WS**

Popular in California, it is mainly used for the fermentation of high-alcohol, big red wines. It respects the varietal character and produces structured but soft wines, white wines.





#### **TECHNICAL STRAINS**





Organic certified varietal yeast strain, produced in compliance with the EU Regulation. It does not contain E491 sorbitan monostearate.

#### FERM ES FLORAL

Blend of two strains with synergistic oenological features. It produces fresh wines with elegant fruity and floral aromas.

#### FERM EZ FERM

Strong fermenter and high alcohol tolerant strain to be used in difficult conditions to prevent sluggish and stuck fermentations.

#### FERM EZ FERM 44

Very fructophilic strain, recommended for sluggish and stuck fermentations.

#### FERM Q TAU

Torulaspora delbrueckii yeast strain selected for its capability to enhance fruit and floral aromas, as well lower volatile acidity when levels are potentially high (late harvest wines).

#### FERM TOP 15

Vigorous strain with high alcohol tolerance and able to ferment at low temperatures. Produces wines with clean aromas that are varietal specific.



### **MAIN FEATURES OF ENARTIS FERM STRAINS**

SRAW	SPECIFES	PEMPERATUR	LAG PHASE	FEMENTATION	ALCHO,	WILER FACTOR	Solingstaury With Missing	MITTED SEW	OXYGEN	AROMATIC	"ORES" WHITE	A.B.	ROSÉ
AMR-1	S. cerevisiae	10-25°C	Short	High	18%	Neutral	Neutral	Medium	Low	F		٨	
AROMA WHITE	S. cerevisae	15-24°C	Medium	Medium	15%	Killer	Neutral	High	Medium	F			
D20	S. cerevisiae	18-38°C	Short	High	17%	Neutral	Neutral	Medium	Medium	F		۵	۵
ES 123	S. cerevisae x S. bayanus	15-25°C	Short	Medium	15%	Killer	Low	High	Medium	F			
ES 181	S. cerevisiae x bayanus	10-20°C	Short	High	16,5%	Killer	Low	Low	Medium- Low	F -V			•
ES 401	S. cerevisiae	15-30°C	Medium	Medium	15%	Neutral	High	Medium	Medium	F		٨	•
ES 454	S. cerevisiae	18-30°C	Short	Medium	16%	Sensitive	High	Medium	Medium	V		٨	
ES 488	S. cerevisiae	15-28°C	Short	Medium- slow	16%	Killer	High	High	High	F - V		٨	
EZ FERM	S. bayanus	12-34°C	Short	High	16,5%	Neutral	High	Medium- Low	Low	N		۵	۵
EZ FERM 44	S. bayanus	15-30°C	Short	Medium	17,5%	Neutral	Neutral	Low	Low	N		٨	•
ES FLORAL	S. cerevisiae x S. bayanus	10-25°C	Medium	Medium	15%	Neutral	Good	Medium	Medium	F		٠	•
PERLAGE	S. bayanus	10-30°C	Short	High	17%	Killer	Low	Low	Low	V			•
PERLAGE FRUITY	S.bayanus	14-20°C	Short	Medium	15%	Killer	Neutral	Medium	Low	F		٨	•
Q CITRUS	S. cerevisiae	10-20°C	Short	High	15%	Neutral	Low	Medium	Medium	F			۵
Q5	S. cerevisiae	15-32°C	Medium	Medium	16%	Neutral	Good	Medium	High	F-V		٨	
Q7	S. cerevisiae	16-30°C	Medium	Medium- slow	16,5%	Neutral	Neutral	Medium	Medium	F		٨	
Q9	S. cerevisiae	14-20°C	Short	High	14,5%	Neutral	Neutral	Medium- High	Medium	F-V			•
QT	Torulaspora delbrueckii	15 - 26°C	Short	slow	10%	N.A.	N.A.	N.A.	N.A.	F		٨	٨

F= fermentation aroma V= varietal N= neutral  $1 \circ f 2 \rightarrow$ 

### **MAIN FEATURES OF ENARTIS FERM STRAINS**

RED FRUIT	S. cerevisiae	14-34°C	Short	High	16%	Killer	Neutral	High	High	F	•	٥	
TOP 15	S. bayanus	10-28°C	Short	High	17%	Killer	Neutral	Low	Low	V	•	۵	
TOP ESSENCE	S. cerevisiae	15-25°C	Short	Medium	15%	Killer	Low	Medium	Medium	F			
VINTAGE RED	S. cerevisiae	18-32°C	Short	Medium	16%	Neutral	High	Medium	Medium- High	V	٨		
VINTAGE WHITE	S. bayanus	14-24°C	Short	Medium	15,5%	Killer	Good	High	Medium- High	V			
WS	S. cerevisiae	16-30°C	Medium	Medium- High	18%	Neutral	Neutral	Low	Low	V		۵	

F= fermentation aroma V= varietal N= neutral 2 of 2



#### WHITE GRAPES

#### TAN AROM

Blend of gallic tannins and inactivated yeast containing sulphur amino acids. Improves protein stability, antioxidant protection of colour and aroma, and is a source of precursors for thiols

#### TAN BLANC

Gallic tannin with a high antioxidant effect. It strengthens the protective action of  $SO_2$  and produces wines that are less sensitive to browning and loss of aromatics.

#### **TAN CITRUS**

Blend of gallic and condensed tannin that enhances citrus and floral notes.

#### TAN ELEGANCE

Blend of condensed tannins, mainly extracted from white grape skin. It contributes to wine colour and aroma, freshness and a soft palate.

#### **RED GRAPES**

#### TAN COLOR

Blend of condensed tannins, mainly extracted from grape seeds, and inactivated yeast. It promotes the formation of exceptionally stable colour pigments formed by condensation. The yeast fraction, rich in sulphur amino acids, stimulates the production of spicy and black fruit aromas.

#### TAN E

Grape seed tannin enriched with monocatechins. It is especially reactive in combining free anthocyanins in long-term stable pigments. Particularly recommended during microoxygenation.

#### TAN FERMCOLOR

Blend of alcohol extracted condensed and hydrolysable tannins. It combines a high antioxidant efficacy with excellent organoleptic quality that makes it suitable for the production of reds intended for ageing.

#### TAN FP

Blend of condensed and ellagic tannin to be used for the immediate protection of grapes during crushing or cold soak.

#### **TAN FRUITAN**

Blend of condensed tannins, mainly extracted from white grape seed that helps colour stability, antioxidant protection and the mitigation of herbaceous aroma.

Tannin addition in the pre-fermentation and fermentation stages provides a lot of benefits such a antioxidant protection, improvement of clarification, improvement of protein and colour stability and enhancement of wine sensory quality. Depending on the desired effect, Enartis is able to offer the right solution.

#### **RED GRAPES**

#### TAN MICROX

Blend of grape seed and oak tannin designed to be used during micro-oxygenation to help colour stability and the build-up of a soft structure.

#### TAN RED FRUIT

Blend of condensed tannins, mainly extracted from the wood of red fruit trees. It increases the expression of berries and red fruit notes.

#### TAN V

Grape seed tannin rich in low molecular weight catechins. Specifically designed to promote long-term colour stability during fermentation.

#### TAN XC

Tannin rich in monocatechins to increase medium-term colour stability by copigmentation.

#### TAN ROUGE

Sacrificial tannin *par excellence*. A blend of gallic, ellagic and condensed tannins that are effective in protecting colour and aromatic molecules from oxidation. Highly recommended for use on mouldy grapes.

#### **OTHER APPLICATIONS**

#### TAN ANTIBOTRYTIS

In the case of mouldy grapes, it reduces the spoiling action of laccase. In the treatment of healthy grapes, it has an antioxidant effect that is synergistic with SO<sub>2</sub>.

#### **TAN SKIN**

Pure white grape skin tannin high in thiol precursors to enhance the final volatile thiol content, structure and aroma, without adding astringency. Improves wine protein and colour stability.

#### TAN SLI

Tannin produced from untoasted oak with a unique process that makes it extremely effective in blocking oxidation and prolonging wine shelf life. It can be used as an alternative to  $SO_2$ .

#### TAN CLAR

Extracted from chestnut wood, Tan Clar is the tannin for fining *par excellence*. When used in juice, it helps the antioxidant protection.

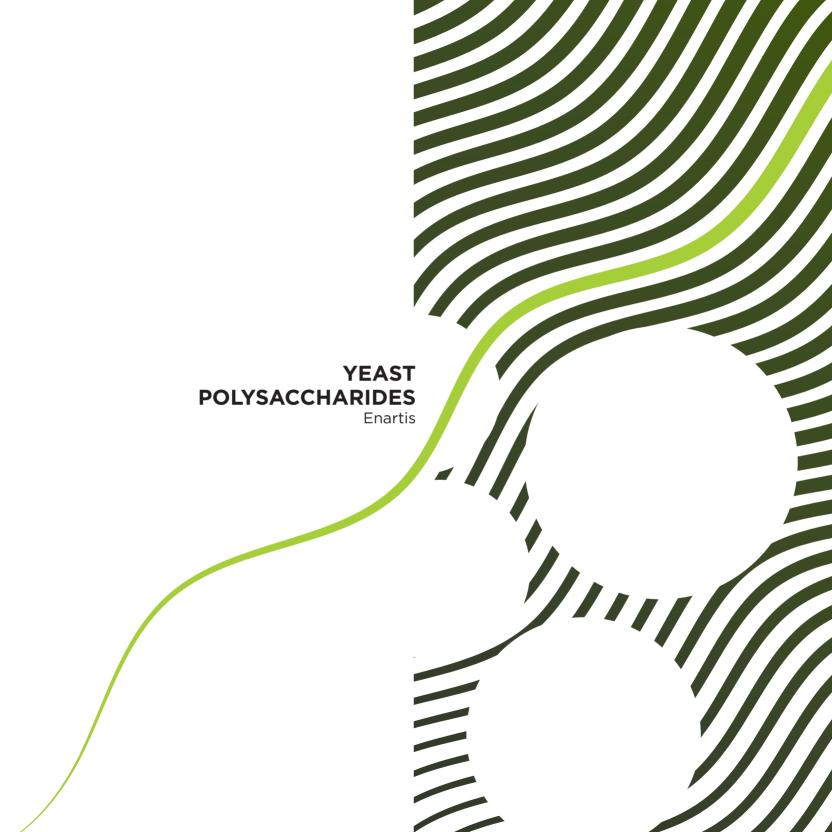




### **CHOOSING THE RIGHT TANNIN**

	COLOUG STABILITY	AMTORIOSMIFEE	STRUCTURE	ASTRINGENCY.	SOFTHESS	AROMA	ASSIGNA CONTINUENTON	4PPLGMON	
ANTIBOTRYTIS				••			ELDER, WOOD	•	۵
AROM	<b>&amp;</b> &	****	••	<b>&amp; &amp;</b>	66	***	PINEAPPLE, PASSION FRUIT, GRAPEFRUIT		۵
BLANC		****	66	66			ELDER, WOOD	•	۵
CITRUS	***	***	••	**	**	****	CITRUS, WHITE FLOWER		۵
CLAR	***	***	***	***			WOOD	•	٥
COLOR	***	***	66	66	***	***	BLACK CURRANT, SPICES	•	۵
Е	****	66	****	***	**	666	STONEFRUIT, GRAPE	•	۵
ELEGANCE	****	***	66		****	***	STONEFRUIT, WHITE FLOWER		۵
FERMCOLOR	****	***	***	66	***	***	WOOD, CHERRY	•	۵
FP	***	666	***	***	**	66	WOOD, SPICES	•	۵
FRUITAN	****	***	***	***	***	***	RED FRUIT, SPICES	•	۵
MICROX	****	***	****	***	**	***	GRAPES, WOOD	•	۵
RED FRUIT	***	66	***	66	***	****	STRAWBERRY, PLUM, CHERRY	•	۵
ROUGE	***	***	***	***	66	66	WOOD, SPICES	•	۵
SKIN	<b>&amp;</b> &	***	66	<b>66</b>	66	***	GRAPES, TEA, FRUIT	•	٥
SLI	<b>&amp;</b> &	****	66		***	***	WOOD, COCUNUT, VANILLA	•	٥
V	****	<b>66</b>	****	***	<b>&amp;</b> &	666	GRAPES, STONEFRUIT	•	۵
XC	***	66	66	***	***		WOOD	•	٥

FERMENTATION TANNINS
Enartis



#### YEAST POLYSACCHARIDES

#### PRO R

Yeast derivative that helps to improve the sensation of volume and soften astringency, by contributing a large quantity of mannoproteins.

#### **PRO UNO**

Once added to the must, this yeast derivative releases mannoproteins that improve aromatic and colour compound stability over time. Additionally, it increases wine mouthfeel and softness.

#### PRO AROM

Yeast derivative that provides mannoproteins and sulphur amino acids. It enhances volume and the production of thiols.

#### **PRO BLANCO**

Yeast derivative rich in readily soluble mannoproteins and sulphur amino acids. It produces wines that are more stable with young, fresh colour and aroma. Sulphur amino acids provide precursor for the production of thiols.

#### PRO ROUND

This preparation contributes mannoproteins and tannins that improve colour stability, mask the vegetal aroma and build up a well-balanced structure.

#### **PRO TINTO**

Blend of yeast derivative and tannins mainly extracted from grape seed. Very effective for colour stabilisation and for creating a well-balanced, soft structure.

#### PRO FT

Blend of PVI/PVP and yeast derivative rich in immediately available mannoproteins. It increases the expression of thiols by removing the main catalysts of oxidation, iron and copper, and provides sulphur amino acids that can be used for the synthesis of thiols.

Every day, more is known about the contribution made by polysaccharides to the stability and quality of wine. A timely addition during fermentation results in wines with a longer shelf life, greater stability, and with enhanced aromatic freshness and mouthfeel.



#### **MALOLACTIC BACTERIA**

#### ML UNO

Selected strain of *Oenococcus* for the production of wines with clean and fruity aroma and negligible content of biogenic amines.

#### ML SILVER

Strain for malolactic fermentation in wine with high alcohol and polyphenols content. It respects the aromatic characteristics of the wine

#### **NUTRIFERM ML**

Nutrient specific for malolactic bacteria. It stimulates the growth of bacteria and dramatically reduces the length of malolactic fermentation even in difficult wines.

#### NUTRIFERM OSMOBACTI

When used at the end of the rehydration phase and prior to inoculation, it increases the rate of surviving cells thus allowing a more rapid start and faster conclusion of malolactic fermentation.

Malolactic fermentation (MLF) is the conversion of malic acid into lactic acid by *Oenococcus oeni* which impacts wine quality and stability. The success of MLF depends on wine conditions, choice of ML strain and preparation of the inoculum. Enartis is proud to offer a complete portfolio of malolactic bacteria and nutrients for an easy, clean and successful MLF.



#### **CHIPS**

#### INCANTO NATURAL

Chips produced from untoasted French oak, for enhancing the fruity aroma without overshadowing the varietal character.

#### **INCANTO CREAM**

Chips from medium toasted French oak. It gives a pleasant and complex sweet aroma and taste.

#### INCANTO VANILLA

Medium toasted American oak chips, for an intense vanilla, coconut and bourbon profile.

#### INCANTO CARAMEL

Chips produced from medium toasted French oak. It gives a caramel, cappuccino aroma while increasing sweetness on the palate.

#### **INCANTO TOFFEE**

Heavy toasted French oak chips. It gives a very complex aroma of cafè macchiato, toasted almond and vanilla.

#### INCANTO SPECIAL FRUIT

Medium toasted French oak chips. It provides complex spicy notes that enhance the fruitiness of the wine.

#### **INCANTO SPICE**

Blend of French and American oak treated with a different toasting process. It gives a very complex and intense spice aroma. Best results with Pinot Noir, Syrah, Cabernet Sauvignon, Sangiovese and Primitivo.

#### **INCANTO BRQ**

French oak, medium plus toast. It reproduces the effects of barrel maturation by enhancing structure and complexity, without overshadowing the varietal character.

### INCANTO SLI



Untoasted America oak. It enhances the varietal fruity aroma, gives volume and prolongs wine shelf life.

Enartis offers a diverse portfolio of oak chips and mini-staves to meet all wine needs and expectations. With Incanto oak alternatives, winemakers have ultimate control over their oak program and can create a unique signature for their brand or label. When released into wine, wood compounds enhance structure and the perceived sweetness of wine, impact the aromatic profile and can help colour stabilisation.

OAK ALTERNATIVES Enartis

#### **SOLUBLE ALTERNATIVES TO OAK**

#### INCANTO N.C. WHITE

Soluble complex made of oak tannin, acacia tannin and yeast derivative. It enhances the fruit aroma, masks the herbaceousness and prevents reduction.

#### INCANTO N.C.

Soluble complex made of oak tannin and yeast derivative designed to mimic the sensory effect of medium-toasted oak dust. It helps colour stability and improves overall wine quality.

#### INCANTO N.C. RED

Mixture of toasted oak tannin and yeast derivative that mimics the effect of mediumplus toasted oak dust. It prevents reduction, improves colour stability and structure, and provides notes of toasted oak.

#### INCANTO DARK CHOCOLATE

Chips produced from heavy toasted French oak. It impacts wine aroma by bringing intense notes of chocolate, cocoa and black coffee.

#### INCANTO N.C. SLI

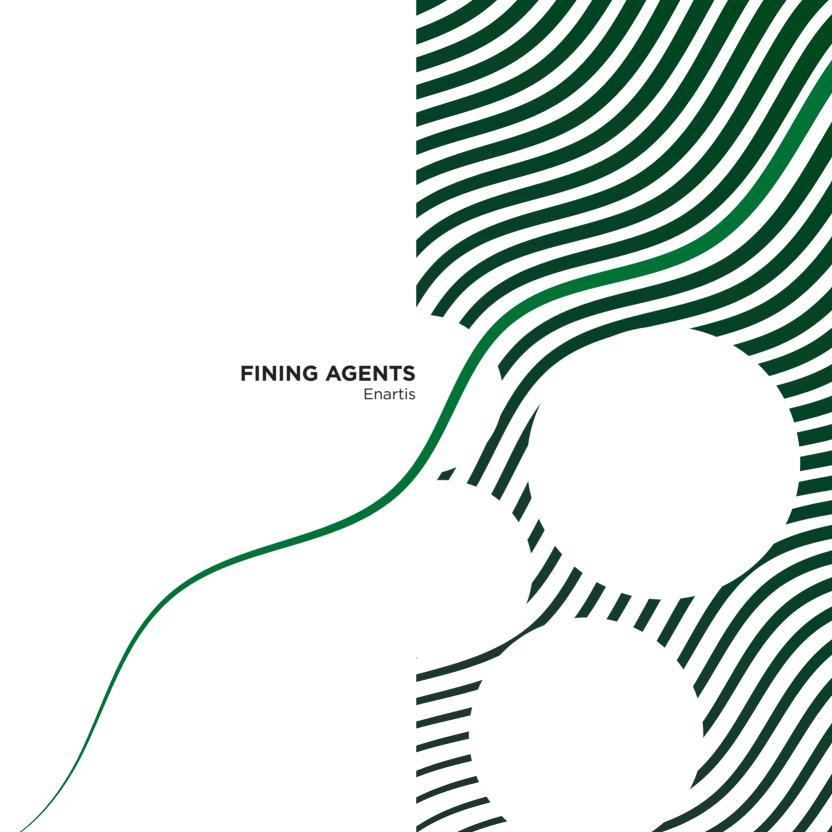


Blend of untoasted American oak tannin and yeast derivative designed to be used to increase wine resistance to oxidation and shelf life.



#### **INCANTO: OAK ALTERNATIVE RANGE**

Produced from selected wood of French and American oak. **INCANTO** woods are toasted using a unique and original process that employs a progressive heating scheme which results in a deep and homogenous toast. The Incanto alternatives are available in sizes chips (2-4 mm), ministaves (about 25 cm lenght x 2.7-5 cm width x 0.9 cm thickness and Barrel Boost (single use system for barrels). **APPLICATION:** increase aroma complexity - increase mouthfeel and structure **DOSAGE:** Chips: 1-4 g/L white wines: 1-6 a/L red wines. Ministaves: 1-5 g/hL. BARREL BOOST: one chain per barrel (corresponding to the addition of 25% new toasted oak). PACKAGING: 10 kg (chips and ministaves) -TOFFEE **STRONG** NATURAL Coffee AROMATIC bag containing a single use chain (Barrel Meringue **IMPACT** Boost) **CREAM** DARK CHOCOLATE Custard Cocoa SWEET VANILLA Panna cotta Vanilla CARAMEL SLI Caramel SPICY Fruit **NOTES INCANTO SWEET NOTES** SPECIAL FRUIT Fruit **BLACK SPICE** Black pepper BRQ SPICE Toasted Clove COMPLEXITY **BARREL EFFECT** Sweetness





## FINING AGENTS FREE FROM ANIMAL PROTEINS

#### PROTOMIX AF

Complex containing bentonite, PVPP, plant protein and cellulose that is designed to clarify musts whilst simultaneously removing unstable proteins and polyphenols responsible for wine oxidation.

#### **PLANTIS AF**

This pure pea protein allows juice and wine clarification while producing a small volume of lees. It removes polyphenols responsible for wine oxidation and bitterness.

#### PLANTIS AF-P

Pure potato protein. It ensures a nice clarification and catechins removal.

#### **PLANTIS AF-Q**

Preparation made of pea protein and activated chitosan. It clarifies while forming small, compact lees and improves juice and wine resistance to oxidation.

#### **COMBISTAB AF**

Complex containing PVPP, plant protein and silica, highly effective in the prevention and treatment of oxidation, pinking and the reduction of bitterness.

#### **CLARIL AF**

A blend containing bentonite, PVPP, plant protein and silica. It is recommended for the elimination of phenolic compounds responsible for oxidation and bitterness and for the improvement of protein stability.

## PROTEIN-BASED FINING AGENTS

#### **GREEN GELATINA**



Pure hot soluble gelatine, organic certified in accordance with European legislation.

#### **HYDROCLAR 30**

30% Liquid solution of medium hydrolysed food grade gelatine.

#### **HYDROCLAR 45**

45% Liquid solution of low molecular weight food grade gelatine.

#### **GOLDENCLAR INSTANT**

High molecular-weight, food-grade gelatine that can be dissolved in water at room temperature. Ideal alternative to egg albumin.

#### **PULVICLAR S**

Food grade, warm soluble gelatine, for deep but gentle clarification of juice and wine.

#### **PROTOCLAR**

Pure potassium caseinate in granulated form.

Fining agents can be used for many purposes in winemaking including clarification, filterability improvement, prevention of haze and sediment formation, organoleptic profile and wine colour improvement, and removal of undesirable elements from wine. Enartis has also developed a line of fining agents free from allergen and animal proteins, suitable for vegetarian and vegan wines, as alternatives to egg albumin, casein, potassium caseinate, isinglass and fish gelatine.

## INORGANIC FINING AGENTS

#### ATOCLAR M

Food grade, cold soluble gelatine, for clarifying and reducing tannin content in juice and wine.

#### BENTOLIT SUPER

Activated sodium bentonite powder for improving white and rosé juices' clarification and protein stability.

#### PLUXBENTON N

Natural sodium bentonite in granular form that combines excellent clarification with good protein removal. Recommended for preventing the "light-struck" defect.

#### **PLUXCOMPACT**

Bentonite that is very effective in removing proteins with a small amount of lees. Recommended for eliminating unstable colour compounds.

#### SIL FLOC

Pure silicon dioxide in aqueous solution.

#### **BLACK PF**

Oenological activated carbon in damp form. Highly effective in decolourising and in removing ochratoxin A.

#### **ENOBLACK PERLAGE**

Decolourising carbon in pellet form, easy to use and to rehydrate.

#### STABYL G

Pure polyvinyl-polypyrrolidone in granulated form for more user-friendly application.

## CORRECTIVE FINING AGENTS

#### **CLARIL HM**

This fining agent benefits from the synergistic actions of chitosan and PVI/PVP to reduce the concentration of iron, copper, hydroxycinnamic acids and catechins, which are key players in the process of oxidation.

#### **CLARIL SP**

Complex clarifying agent consisting of bentonite, PVPP, potassium caseinate and silica. It is recommended for the prevention and correction of must and wine oxidation

#### **NEOCLAR AF**

Blend of bentonite, gelatine and activated carbon. It ensures fast clarification with a minimal amount of lees even in difficult situations. Particularly effective in reducing off-flavours and herbaceous characters.

#### PROTOMIX G

Suitable for must clarification or during fermentation. This complex is made of bentonite, casein and cellulose to improve wine stability and resistance to oxidation.

#### **REVELAROM**

Granulated fining mixture containing copper, to be used for correcting and preventing appearance of sulphides or reductive characters.

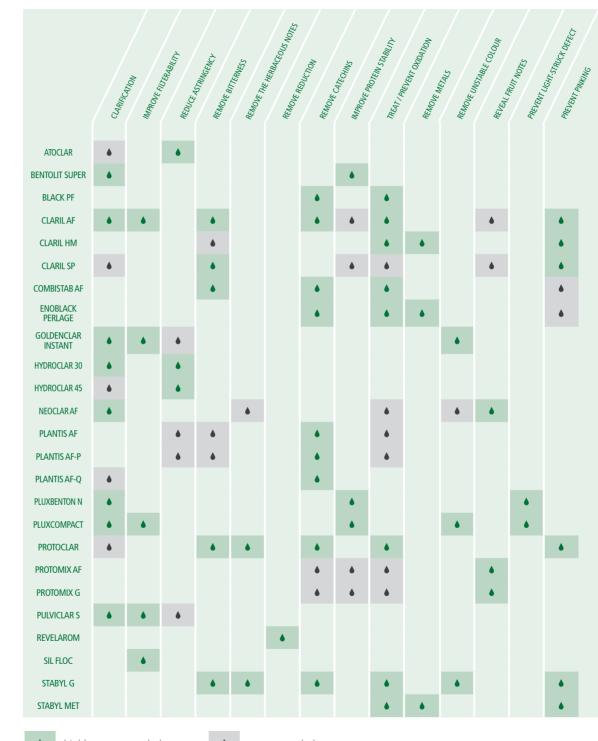
#### STABYL MET

Co-polymer of PVI/PVP and silica. It prevents oxidation, browning, pinking and formation of haze by removing the main catalysts of oxidation, iron and copper.









FINING AGENTS Enartis

highly recommended

♠ re

recommended



#### **STABILISING AGENTS**

#### STAB MICRO

Pure activated chitosan. It controls the growth of unwanted yeast and bacteria that can spoil wine during ageing. Particularly recommended for removing Brett and the off-flavours produced by this microorganism.

#### STAB MICRO M

Preparation based on activated chitosan designed for the treatment of musts and cloudy wines. It can be used for reducing spoilage yeast and bacteria that are responsible for the production of acetic acid, off-flavours or the onset of unwanted malolactic fermentation.

n today's wine market, it is crucial for wines to be visually appealing to consumers: any haze or precipitate is unacceptable and can damage brand reputation. The appropriate use of stabilizing agents ensures the production of wines that maintain their sensory characteristics up to the time of their consumption.



#### **SULPHITING AGENTS**

#### **EFFERGRAN/EFFERGRAN DOSE 5**

This effervescent, granulated potassium metabisulphite can be added directly to must, wine and grapes. It rapidly dissolves, ensuring that its antioxidant and antimicrobial effect is maintained where needed

#### WINY

The highest quality potassium metabisulphite in the market. Thanks to Enartis production expertise, Winy is virtually odourless, does not form rocks and has a concentration of metabisulphite superior to 99%.

#### **AST**

Blend of potassium metabisulphite, ascorbic acid and gallic tannin in carefully balanced amounts to maximise antioxidant and antimicrobial action. Very effective in preventing atypical ageing off-flavours.

#### SUPERSOLFOSOL

Aqueous solution of ammonium bisulphite.  $SO_2$  concentration: 400 g/L.  $NH_4$  concentration of 113 g/L.

#### NEOSOLFOSOL C

Aqueous solution of ammonium bisulphite.  ${\rm SO}_2$  concentration: 630 g/L.  ${\rm NH}_4$  concentration of 177 g/L.

#### SOLFOSOL M

Aqueous solution of potassium bisulphite. Enables sulphur dioxide to be easily and safely added from harvest to bottling.  $SO_2$  concentration: 150 g/L.

For its antioxidant, antioxidasic and antiseptic effects, sulphur dioxide is considered the wine preservative *par excellence*. Application of  $SO_2$  is one of the most common practices in winemaking. An important aspect of this treatment is the time it takes to prepare and apply the product.  $SO_2$  comes in various forms: gas, solution, powder, effervescent granules, and depending on the application, one form might be preferred over another.

