

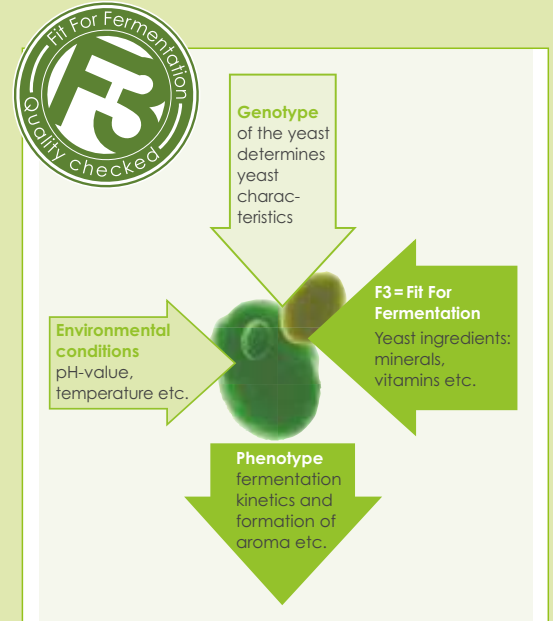
## New! F3 Process for Oenoferm Yeasts

Erbslöh's Oenoferm yeasts are now manufactured using Erbslöh's F3 process to provide improved fermentation performance.

A special propagation medium, rich in minerals and strengthening vitamins, is used for cultivation.

From the multiplication phase up until the phase where optimal cell density is reached, the yeasts are supplied with essential components to give complete fermentation even in sub-optimal or stress conditions.

See page 3 for more information about the F3 process.



*The F3 process compensates negative environmental impacts and assures improved fermentation kinetics.*

## Oenoferm Yeasts:

	Oenoferm	Oenoferm Freddo	Oenoferm Pinot Type	Oenoferm Rouge	
<b>Application</b>	<b>Aroma</b>	Clean, with ripe green apple and white fleshed vineyard peach aromas	Extremely clear, clean fragrance, supports varietal typicity, expressive citrus, apple, peach aromas and rose scent, very animating, fresh wines	Flowery, fruity, delicately spicy aromas and bouquet, mineral-spicy on the palate, finely nutty	Supports the aroma profile of red berries and cherries, as well as spicy-nutty components
	<b>Recommendation</b>	For clean wines with typical varietal character	For all fresh-fruity wines with prominent distinct varietal typicity, freshness and liveliness	For all elegant, typical Burgundian-style wines which combine a flowery nose and a creamy palate	For red wine types with prominent, pronounced fruit aromas, also with ageing potential
	<b>Recommended varieties</b>	Riesling, Müller-Thurgau, Kerner	Riesling, Müller-Thurgau, Chasselas, Kerner, Silvaner, Scheurebe, Traminer, Sauvignon Blanc, Pinot blanc, Welschriesling, Chardonnay,	Pinot blanc, Pinot gris, Chardonnay, Auxerrois, Pinot wines	Lemberger, Pinot noir, Saint Laurent
	<b>Oenological yeast type</b>	Cerevisiae	Bayanus	Cerevisiae	Cerevisiae



## Oenoferm Yeasts cont ...

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					Type	
<b>Fermentation kinetics</b>	<b>Killer characteristics</b>	+	++	+		+
	<b>Inoculation in g/100 L</b>	20 – 30	20 – 30	20 – 30		20 – 30
	<b>Foam behaviour at rehydration</b>	Significant	Moderate to medium	Moderate to medium		Low
	<b>Fermentation start in h</b>	10 – 20	25 – 40	10 – 15		15 – 20
	<b>Fermentation course</b>	Rapid under regular conditions	Rapid and safe also at low temperatures	Moderate, but continuous fermentation		Continuous fermentation
	<b>Degree of final fermentation</b>	Complete	Complete	Complete		Complete
	<b>Further characteristics</b>		Acid preserving, very low sulphide off-flavour formation very low foam formation during fermentation	Increased formation of fruit esters and glycerol, very suitable for sur liesageing		Polyphenol-stabilising
<b>Parameters of influence</b>	<b>Required nitrogen content</b>	Medium	Low	Medium high		Medium
	<b>Recommended temperature range in °C</b>	16 – 22	13 – 17	18 – 22		18 – 28
	<b>Recommended fermentation aids</b>	VitaDrive F3* VitaFerm Ultra F3	VitaDrive F3*, Vitamon Combi, LittoThiamol P	VitaDrive F3* Vitamon Combi LittoThiamol P		VitaDrive F3*, Vitamon Combi, LittoThiamol P
	<b>Alcohol tolerance in % by vol.</b>	Up to 14	Up to 15	Up to 15		up to 14,5
	<b>Influence on MLF</b>	Neutral	Rather inhibiting	Promoting		Promoting

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We stock the Oenoferm yeasts mentioned above in addition to Klosterneuburg and Rosé. More Oenoferm yeasts are available. Please ask us for details.



Order these online at [www.vigoldt.com](http://www.vigoldt.com) and get 5% off the order value.

(\***NEW!**) We will be stocking **VitaDrive F3** shortly. Please call us on 01404 892100 if you would like to reserve.



## F3 Process of Yeast Production

During the F3-process, the presence of a high amount of ergosterol results in membrane stabilization. Consequently, Erbslöh F3-Oenoferm-yeasts possess a significantly higher tolerance to alcohol. The optimization of the total manufacturing process has generated the new F3-standard.

The alcoholic fermentation follows glycolysis and follows in the transformation of pyruvate to acetaldehyde and finally its reduction to ethanol.

The responsible enzymes are the pyruvate decarboxylase and the alcohol dehydrogenase.

Both enzymes need appropriate cofactors to achieve their catalytic activity. In the case of depletion in the growth media, these cofactors must be provided as nutrients. The pyruvate decarboxylase requires magnesium ions and thiamin pyrophosphate (vitamin B1). The activity of the alcohol dehydrogenase depends on the presence of NAD<sup>+</sup> and zinc ions (Fig. 2). If these important cofactors are missing totally or partly, there is an accumulation of intermediate products, like pyruvate and acetaldehyde in the wine, without further transformation into alcohol.

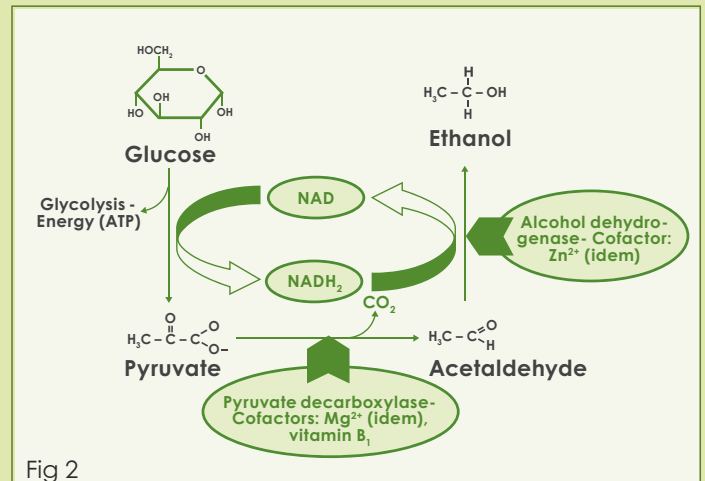
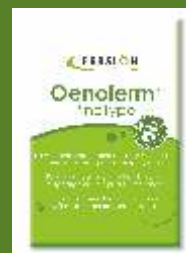


Fig 2

Precisely these intermediates are known for their high SO<sub>2</sub> binding capacity. Another problem encountered with yeast nutrients supply is the limited amount of zinc available due to exceeding concentrations of calcium ions. Calcium as a cofactor does not play a role in the fermentation: neither for the glycolysis, nor for the alcoholic fermentation. Nonetheless, they compete with other divalent metal ions, e.g. zinc and magnesium for the binding site. Balancing these interactions between ions is ensured by the complex nutrients VitaDrive F3 and VitaFerm Ultra F3.

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