OenoGuide

EXTRA

English

ERBSLÖH

Progress is our future

Trenolin® Rosé

Perfect colour for modern rosé wines

Rosé wines are in great demand, with the trend moving towards paler wines worldwide. This corresponds to a colour sum (420 nm + 520 nm + 620 nm) of less than 1 in the finished wine. The increased colour extraction of Blanc de noir and Pinot gris wines during pressing is a particular problem. These wines are often treated with activated carbon to reduce colour. Loss of quality is the result. Trenolin® Rosé DF has very low macerating properties and therefore lower colour extraction at higher pressing pressures.

Rosé concept

The rosé concept includes oenological products optimized for the special needs of rosé wine production. Trenolin® Rosé, LittoFresh® Rosé and Oenoferm® Pink support the modern rosé wine style characterized by a clear fruit and a pale colour.

LittoFresh® Rosé

LittoFresh® Rosé is specifically developed product based on phytoproteins and PVPP. It is used for treating musts during rosé wine production, to remove oxidisable phenols and decrease colour, especially the yellow shade.

Oenoferm® Pink

Oenoferm® Pink is a yeast that supports the style of modern, international rosé wine styles – crisp, dry, with pronounced fruit. It introduces a floral aroma, plus raspberry, red fruit and subtle spice to the wines.

Trenolin® Rosé DF | *0.1/1 kg pack*

Low colour extracting enzyme

Treatment aim

Mash processing in rosé, blanc de noir and blanc de gris winemaking.

Product and effect

Trenolin® Rosé is a liquid enzyme formulation which offers the following benefits:

- Very low macerating properties
- Ideal choice for grapes rich in anthocyans, for warm harvest conditions and high pH values
- Higher percentage of free run juice
- Higher yield with lower pressing
- Reduced polyphenol extraction and cinnamoyl esterase free

Dosage

2–3 mL/100 L or kg

Oenoferm® Icone

Alcohol tolerant yeast with low SO_2 production for premium red wines intended for maturation

Oenoferm® Icone is a yeast for the production of red wines intended for aging. This strain shows safe fermentation even in tough conditions. Characteristic for this yeast are the low SO_2 production and the increased release of polysaccharides.

Oenoferm® Icone produces structured and well-rounded wines of great purity.

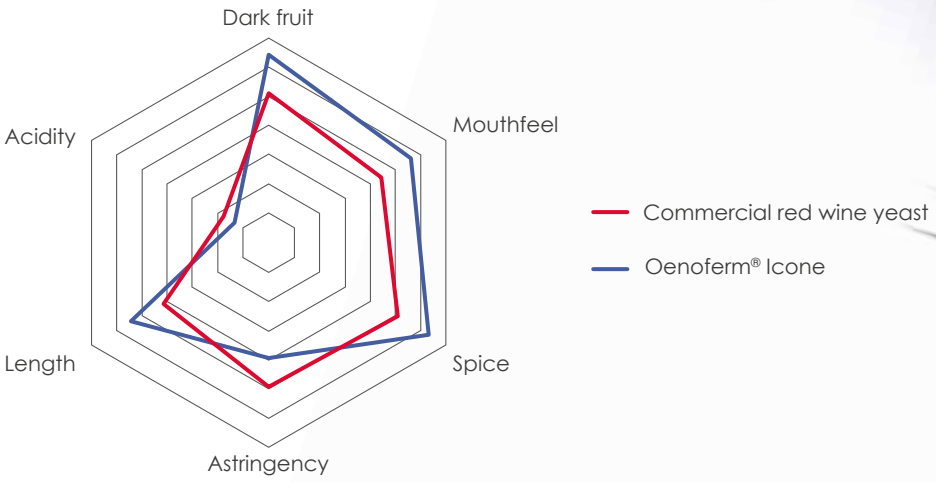


Fig. 1 Sensory characteristics of Oenoferm® Icone compared to a commercial red wine yeast

Oenoferm® Icone | *0.5 kg pack*

Low SO_2 red wine yeast

Treatment aim

Alcohol-tolerant yeast with low SO_2 production

Product and effect

Oenoferm® Icone is a strongly fermenting yeast strain with the following characteristics:

- Selected for the production of premium red wines
- Ideal for wines intended for barrel maturation, due to the low SO_2 production during fermentation
- Supports the aromatic profile
- Improves tannin integration
- Produces rounded, well balanced wines, due to its high production of polysaccharides

Recommended fermentation temperature:	18–33 °C
Alcohol tolerance:	16,5% by vol.

Dosage

15–30 g/100 L

Certified organic products

Since July 2012, Regulation (EC) No. 203/2012 has regulated the processes and auxiliary materials permitted for the vinification of organic wine. Since 2008, Erbslöh Bio-Vinification has consistently produced certified organic products. They meet the highest standards of sustainability, quality and purity. The following overview shows the products currently available.

Further information and the organic certificate (DE-ÖKO-003) can be found at www.erbsloeh.com.

	Application	Description	Dosage (g(mL)/100 L)	Packaging (kg)
Yeasts				
Oenoferm® Bio	White wine/ sparkling wine	Certified yeast for organic wines and sparkling wines.	20 – 30	0.5
Oenoferm® Be-Red	Red wine	Certified yeast for color intensive and structured organic red wines.	20 – 40	0.5
Nutrients				
PuroCell® O	Fermentation support and restart	Pure yeast cell wall preparation for the adsorption of fermentation-inhibiting substances.	20 – 40	0.5
VitaFerm® Bio	Yeast nutrition	Inactivated organic yeast, provides important amino acids and vitamins.	20 – 30	1 10
Fining				
ErbiGel® Bio	Clarification and polyphenol reduction	Clarification and flotation.	5 – 20	1 25
Stabilization				
HydroGum Bio	Stabilization	Improves mouthfeel.	20 – 100	1

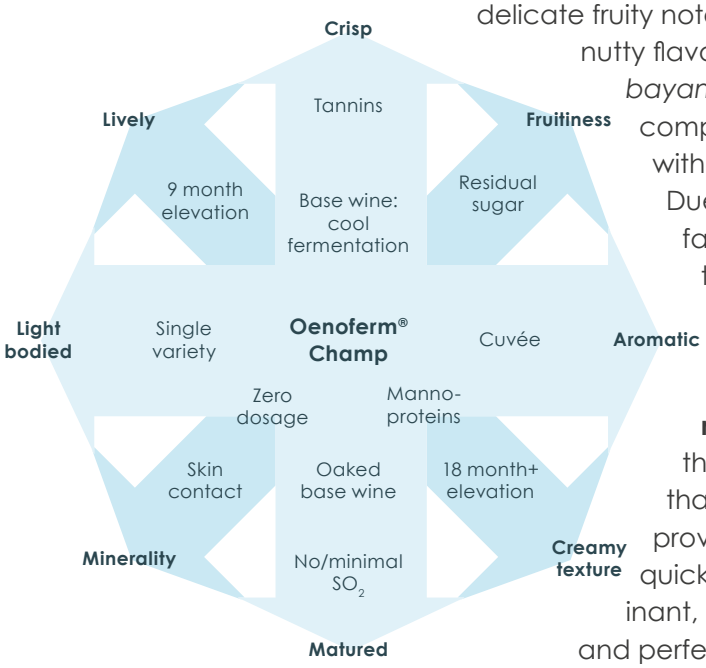
NEW NAME – PROVEN QUALITY

HELLO CHAMP

Oenoferm® Champ

Oenoferm® CHA has a new name - but the yeast remains the same!

From CHA to Champ: our champion for sparkling wines is bigger than ever! Originally selected in the Champagne region, it is just **the perfect yeast for high-quality sparkling wines**. It encourages delicate fruity notes with hints of nutty flavours. Its origin in the *bayanus* family ensures complete fermentation without any residual sugar. Due to a short lag phase, fast and consistent fermentation, it is the top choice for sparkling wine production. At the same time Oenoferm® Champ is ideal to use **to get stuck fermentations back on track,** or if the condition of the material is less than optimal. Oenoferm® Champ provides a positive killer factor, which quickly establishes the yeast as dominant, thereby guaranteeing a clean and perfect product.



Sparkling concept

To meet the distinct challenges of making sparkling wines, this concept includes oenological products combined for the special needs of bottle fermentation. Among other Erbslöh products, Oenoferm® Champ, Vita*Drive*® F3 and Erbslöh CompactLees will support a modern style of sparkling wine.

VitaDrive® F3

Vita*Drive*® F3 contains essential nutrients. It protects and stimulates the yeast during rehydration and increases yeast's fitness for second fermentation.

Erbslöh CompactLees

The yeast sediments quickly and completely after fermentation using Erbslöh CompactLees. Adhesion is avoided and riddling of the lees is made much easier.

VEGAN

A trend with a future

Consumer expections are continously moving towards sustainable and natural procedures on all levels. Retailers at the same time are looking for products to satisfy these demands. This leads to a growing demand for alternative fining agents for wine, vinegar and fruit juices.

The new vegan product line offers distinct treatment possibilities guaranteed to be without animal components. They cover all applications and process steps of winemaking, with equal or even better results.

With LittoFresh® you stay on top of the process!

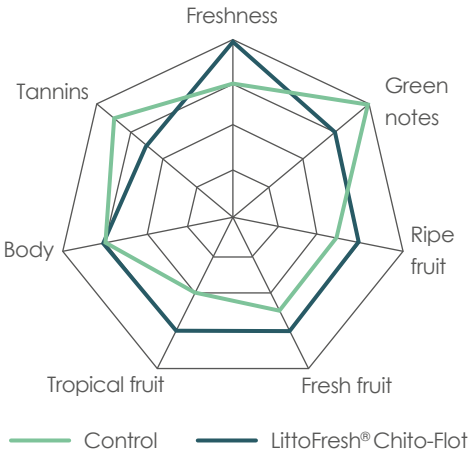


Fig. 1 Sensory impact of LittoFresh® Chito-Flot

NEW LittoFresh® Chito-Flot

LittoFresh® Chito-Flot is a liquid blend of pea protein and an addition of chitin-glucan. This allows for a quick and strong clarification during flotation and sedimentation. The flotation cake floats up quickly and can easily be separated from the clear must.

Due to a fast flocculation the sedimentation time can be shortened and the degree of clarification increased.

Tailored to fill specific roles each single product is a highly effective tool to meet your demands in must and wine. All versions of LittoFresh® versions act selectively and thereby protect the aromatic components.

NEW LittoFresh® Impact

LittoFresh® Impact is a vegan combination product as a sustainable alternative to phenol fining. Its high reactivity to oxidised polyphenols enables a targeted sensory improvement and a reduction in the colour of must, as well as white and rosé wines.

It consists of a mixture of high-quality, vegetable proteins, selectively acting activated carbon and silicates. Together, these components enable a far-reaching, well-controllable effect in must and wine.

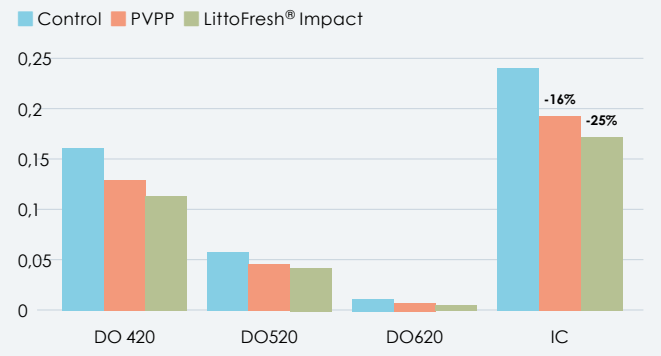


Fig. 2 Reduction of polyphenols in must treated with LittoFresh® Impact compared to PVPP per 30 g/100 L. Languedoc-Roussillon, France.

New solutions, new opportunities

The new LittoFresh® product line offers a high level of efficiency and purity for your wines.

LittoFresh® Origin

Pure phytoprotein for fining and clarifying must and wine.

LittoFresh® Rosé

Plant-based must treatment for producing rosé wines.

LittoFresh® Impact

Preventive treatment for white and rosé musts.

LittoFresh® Most

Prophylactic treatment to prevent oxidation and bitterness in wine, based on phytoprotein.

LittoFresh® Chito-Flot

Liquid formulation of pea protein for quick and powerful results in flotation.

LittoFresh® Liquid

Liquid phytoprotein for fining and harmonising must and wine.

LittoFresh® Sense

Plant-based organoleptic treatment product.

Inline stabilisation

Modern cross-flow technology allows bentonite and activated carbon to be added directly before the filter, allowing for stabilisation and clarification in a single, simultaneous step. This not only enables wineries to reduce bentonite/activated carbon consumption, eliminate settling time after fining, reduce wine waste and sediment volumes, but also to save time, energy and water - all at the same time.

Application is performed via an inline dosing system controlled by a flow meter. It can be used in conjunction with the PALL Oenofine XL and Bucher Flavy Tandem crossflow filters. Please contact the filter manufacturer in advance for direct use in other manufacturers' dynamic crossflow filters or systems.

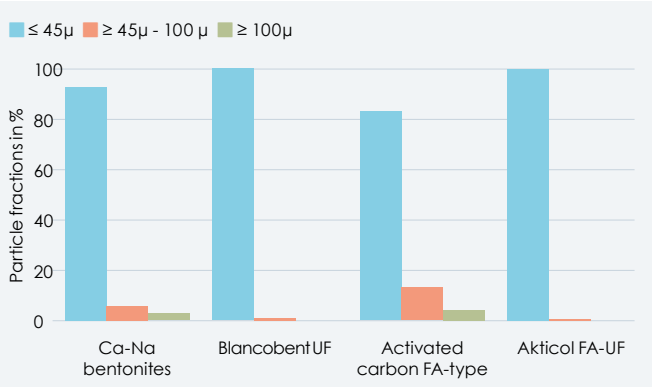


Fig. 1 Blancobent UF and Akticol FA-UF products are unique due to their extraordinarriy small particle size

Bentonite and activated carbon suitable for crossflow filtration have a defined particle size distribution and are therefore characterised by lower abrasiveness compared to membrane systems. For example, the bentonite particles in Blancobent UF are entirely below 100 microns and only 0.2 % of the particles are larger than 45 microns.

Blancobent UF

This special bentonite is used to drastically reduce the effort required for protein stabilisation and filtration. The wine is introduced to the crossflow system without prior racking or filtration. The purity and high adsorption capacity of Blancobent UF additionally reduces the dosage by up to 30%, compared to conventional bentonites.

Akticol FA-UF

Acid-activated, highly efficient powdered carbon of purely vegetable origin. Lower dosages are possible due to Akticol FA-UF's high phenol adsorption, while a better colour effect can be achieved at the same time. The composition and purity of this carbon allow very gentle use in combination with crossflow filtration systems, with negligible abrasion.

Organisation of bottling can be decisively simplified and made more flexible by combining several work steps. The working time for preparation and cleaning is drastically reduced. The available tank space is utilised in the most efficient way, which increases the winery's profitability. Not only is the CO_2 footprint of the wines reduced, but water consumption is also consistently minimised. Wines can thus be brought to the market with pinpoint accuracy and high sustainability at the same time.

At a glance:

- Reduction of time and effort
- Savings in energy and water
- Increased and more flexible production capacity
- Reduced bentonite input
- Extremely fine granulation to protect the filter membranes
- No disposal of filter aids necessary

Inline stabilisation is the resource and cost-saving alternative to conventional filtration processes.

Direct inoculation

New research results and practical trials show that certain yeast strains have excellent fermentation kinetics even without rehydration.

In the harvest season the time-consuming work of yeast rehydration is an everyday task which requires a lot of attention. Proper rehydration of dry yeasts is considered a central measure to avoid fermentation difficulties. Taking a closer look, one realizes that there are many potential influencing parameters.

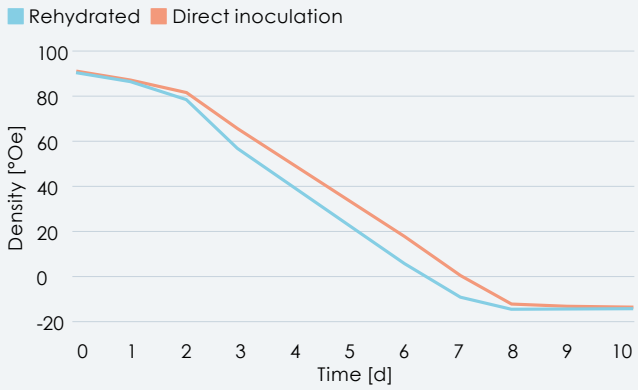


Fig. 1 Oenoferm® X-treme rehydrated vs. direct inoculation. Harvest trial, Geisenheim 2017

The technique of direct inoculation has its limits, however. Only yeasts that are explicitly recommended for the task should be used. These are usually Bayanus strains with strong fermentation properties, low nutrient requirements and a low tendency towards reductive off-flavours.

Please make sure:

- Use a recommended yeast strain in a slightly higher dosage
- Ensure good nutrient supply
- Pay attention to an even distribution
- Check temperature

Maximize thiol yield – Vita*Drive*® ProArom and Oenoferm® X-thiol F3

Oenoferm® X-thiol F3 is a GMO-free hybrid yeast selected by Erbslöh Geisenheim. Protoplast fusion was used to combine the positive properties of two different *Saccharomyces cerevisiae* strains. It is a powerfully fermenting hybrid yeast with high tolerance of alcohol to enhance fruity thiols and exotic aromas. Oenoferm® X-thiol F3 requires little nitrogen, it forms low amounts of SO_2 and does not tend to produce H2S. To promote fruity thiol aromas Oenoferm® X-thiol F3 has proven to be particularly suitable at temperatures of 18 – 22 °C. The innovative nutrient formulation of Vita*Drive*® ProArom derived from glutathione-rich yeast has been selected for its high natural concentration of reductive peptides and mannoproteins, essential nutrients, minerals, vitamins and amino acids. It has a high glutathione content in its active form, GSH, and is responsible for protecting yeast from the stress of spreading and preventing premature oxidation of varietal aromas during winemaking.

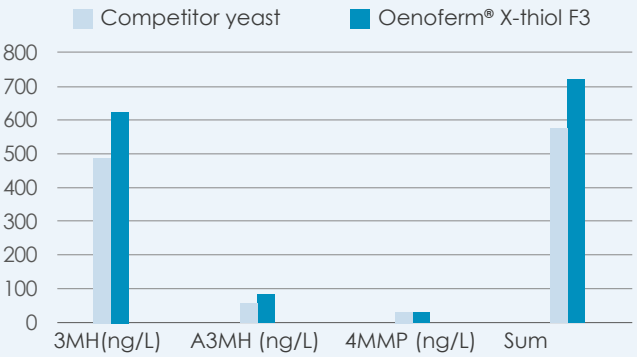


Fig. 1 Comparison of Oenoferm® X-thiol and a thiol producing competitor yeast in Sauvignon Blanc, France 2016.

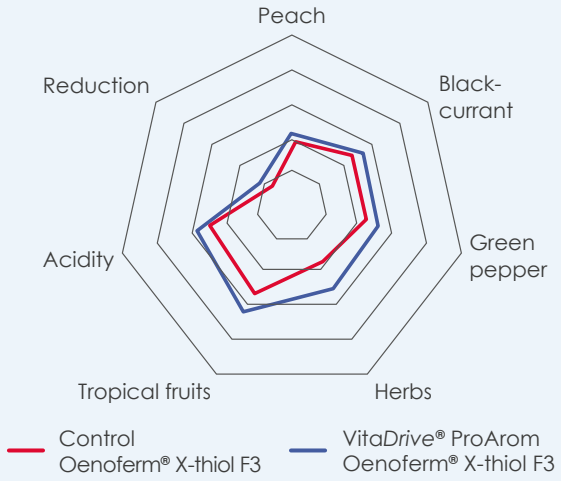


Fig. 2 Trial in France, 2017: Sauvignon Blanc fermented with Oenoferm® X-thiol F3 and comparing the aromatic potential with and without Vita*Drive*® ProArom.

Climate change

The global climate crisis is also changing our craft, often in unpredictable ways. Drought, heat, changing vegetation periods, even the new opportunities present us with challenges. At Erbslöh Geisenheim we offer you a variety of solutions in our portfolio to creatively deal with this. Here are our most prolific options - many more are still under development.

Tannins

Individual functions of sulphur can also be taken over by other substances. This extended protection is becoming increasingly important due to rising pH levels of the wines, in order to be able to continue to work adequately with the permitted amounts of sulphur. Especially for the protection against oxidation, the sulphur alternative Tannivin® Galléol comes to mind. This specially selected gall nut tannin is capable of intercepting oxygen before an oxidative connection with aromas and other ingredients of the wine has formed. Our grape-skin tannin, Tannivin® Grape, protects wines from ageing too rapidly in the bottle.

Enzymes

The right enzyme can significantly increase production capacity and sustainability. Pressing and pre-clarification volumes are the greatest challenge of every vintage.

However, rapidly changing weather extremes can make it necessary to harvest as quickly as possible. This is the only way to preserve the necessary quality of the grapes and minimise the threat of yield loss. Sufficient cooling, energy, water and labour are neither available at all times, nor is tank capacity. Speed drastically reduces costs, ensures quality and quantity and has a positive effect on the overall result. The wines are produced at lower costs, more environmentally friendly, sustainable and competitive.

Staves

e.Staves are new to the Erbslöh portfolio. Made of French oak, they are required to meet the same high standards as a conventional barrel stave. e.Staves is the sustainable

choice many points of view compared to a barrel. e.Staves require less wood for a comparable amount of wine and the process uses only a fraction of the water and energy compared to cleaning and preserving a barrel.

Vegan

The vegan treatment of must and wine is visibly developing into the state of the art technique and at the same time it is being demanded as a matter of course by more and more partners and consumers.

Our LittoFresh® products are based on highly effective pea proteins. Depending on the formulation and combination, options are available for clarification, flotation, phenol correction or gentle polishing. Available in powder and liquid form, the handling leaves nothing to be desired. Pea protein consistently reduces the CO_2 footprint in cellar management and ensures the flawless quality of the wines.

Bio-Protection

The use of non-saccharomycetes in combination with classic wine yeasts is widespread in oenology. Now we also have the possibility to protect the grapes as well. The multifaceted properties of wild yeasts expand the spectrum of applications, for example by suppressing the accompanying flora of the grapes. In this way, they make it possible to reduce the use of SO_2, improve the aroma, lower the resulting alcohol content or stabilise the wine colour. Yeast species of the genus *Metschnikowia* have proved particularly suitable for this purpose. The aim here is not alcoholic fermentation, but the control of the existing microbiological flora. Oenoferm® MProtect makes it possible to dispense with the protection of the grapes by SO_2 and thus also protects the sulphur balance of the resulting wines. Under cool conditions, the grapes, the mash and the must can be effectively protected from negative microbiological activity. The formation of off-flavours is consistently prevented.

Acidity Management

Harvest dates have become more unpredictable in every way. At the same time, acidity levels and pH levels develop very differently - even within an individual region. Each vintage brings with it a multitude of individual situations, acidification or de-acidification is no longer the only question. The precise handling of each vintage, each grape variety and each wine has more than ever become a necessity. With a wide range of specific products, Erbslöh gives you all the necessary options for your individual challenges.

Traditionally carried out in red and rosé wines, malolactic fermentation as a subtle, style-enhancing variant of acid reduction has been established for white wines as well. We offer a wide range of specialised bacteria to cover all possibilites. Boerovin and Erbslöh Tartaric ensure the stability of must and wine by a quick correction of the pH value. For the reducing correction of acidity, Erbslöh Kalk, Kalinat and Neoanticid provide options in every step of winemaking.

Meet the challenges of climate change today - with Erbslöh as a strong partner at your side!

Trenolin® ProStab

One step to stability

An enzyme to stabilise protein? It's possible with the new Trenolin® ProStab. This special protease can break down the proteins present in must.

Grapes on the vine form proteins as a defence against mould spores. The quantities formed vary depending on the grape variety and conditions during the year. If the grape proteins are not stabilised during vinification, it often causes turbidity in the bottle.

Fig. 1: Chitinases and thaumatin-like proteins that cause turbidity are structured like a ball of wool. Only when this is untangled into individual strands by heating to 65 – 70 °C are the proteases fully able to break down all the proteins.

Trenolin® ProStab can remove these proteins at the must stage. It can be used in white and rosé musts. The structure of the turbidity-causing proteins resembles a ball of wool. Only when this ball has been untangled can the enzymes attack the proteins. This requires the must to be heat treated beforehand. Heating unpacks the complex protein structure, which can then be dissolved by Trenolin® ProStab.

Without heat treatment there is the possibility that the protease will not be sufficiently effective to completely remove thaumatin-like proteins. The heat-sensitive proteins do not remain permanently untangled. The optimum effect is achieved only if the must is heated to 65 – 70 °C after the Trenolin® ProStab is added.

Numerous trials consistently proved that such heating does not in any way have a detrimental effect on the final wine's sensory characteristics.

At a glance

- Early minimisation of the risk of protein turbidity in wine
- Reduction of time and process costs required
- No wine losses as a result of deposit formation

Also new at Erbslöh

Strong. Stronger. The new Granucol® FA

Our team has once again succeeded in significantly improving Granucol® FA through continuous development. Undesirable colour pigments can now be tackled even better thanks to a new formulation. It is now possible to remove even dark shades gently to a great extent. One great side effect is that not only does Granucol® FA perform better, every single gram is more powerful. This makes it possible to reduce the dosage for minor corrections, better protecting the structure and aroma of the must and wine.

Our Granucol® GE product continues to deliver targeted adsorption of undesirable off-notes, thus retaining its high standards. The subtly adjustable dosage quantities make it possible to carefully carry out the necessary treatments. We recommend that you carry out prior tests to determine the right quantity for your needs.

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