ABOUT PURE-LEES™ LONGEVITY: COMPOSITION, WAY OF ACTION, WAY OF USE

What is PURE-LEES™ LONGEVITY made from?
A 100% specific inactivated wine yeast selected from the Lallemand collection.

How do I use PURE-LEES™ LONGEVITY?
We recommend to suspend PURE-LEES™ LONGEVITY in 10-20 times its weight in water or wine in order to easily add into the whole volume of wine to be treated and ensure efficient mixing. When making a tank to tank transfer, the suspension step can be avoided and PURE-LEES™ LONGEVITY can be poured onto the bottom of the destination tank before starting the wine transfer.

Does PURE-LEES™ LONGEVITY lose its oxygen uptake efficiency during its suspension in wine or water?
No. PURE-LEES™ LONGEVITY does not lose its oxygen uptake capacity when it is suspended in wine or water before adding it into the wine volume to be treated.

What is the maximum quantity of dissolved oxygen that PURE-LEES™ LONGEVITY is able to scavenge?
20g/hL of PURE-LEES™ LONGEVITY is able to scavenge 1mg/L of dissolved oxygen.

How much PURE-LEES™ LONGEVITY should I add?
20 and 40g/hL however.
20g/hL generally leads to the best balance between dissolved oxygen uptake and the sensory impact on wine mouthfeel.

What are commonly found dissolved oxygen levels in wines?
It is reported in the literature that winery operations can lead to the addition of 0.5 to 5mg/L of dissolved oxygen depending on the operating conditions… (pumping, rack-off…).

How does PURE-LEES™ LONGEVITY work?
PURE-LEES™ LONGEVITY works due to its high ability to consume dissolved O_2.

How long does PURE-LEES™ LONGEVITY need to react to scavenge dissolved oxygen? Is it necessary to suspend the PURE-LEES™ LONGEVITY?
Very quickly as we observed a complete consumption of the introduced dissolved oxygen within 20 minutes. It is not necessary to suspend PURE-LEES™ LONGEVITY, especially since suspension will lead to the introduction of additional oxygen into the wine.

Is it necessary to stir the wine after adding PURE-LEES™ LONGEVITY?
Yes. Gently mix PURE-LEES™ LONGEVITY into the whole volume of wine but avoid excessive stirring.

How long can PURE-LEES™ LONGEVITY contact the wine without negative impact on wine quality?
Our experience has been up to 9 months without any negative impact. The specific inactivated yeast that is composing PURE-LEES™ LONGEVITY is coming from an enological strain of *Saccharomyces cerevisiae* and its development was inspired from the traditional practice of aging on lees.
Keep in mind that after 9 months, PURE-LEES™ LONGEVITY capacity to take up oxygen will not be active any more.

What is the minimum PURE-LEES™ LONGEVITY contact time to see an effect?
The initial dissolved oxygen consumption takes place within the first couple of hours. Keep in mind that the oxygen scavenging benefits will continue to be maintained over time or until PURE-LEES™ LONGEVITY is saturated with oxygen.

What tool may I use to determine the minimal, optimal and maximal timing of the treatment?
A probe to measure dissolved oxygen is commonly used to monitor what are the critical points regarding oxygen pickup.

What is better: a single addition of PURE-LEES™ LONGEVITY or 2 smaller additions?
Depending on the initial level and exposure of dissolved oxygen during aging/storage, if the wine is transferred several times an average smaller dosage of 10 to 20g/hL made at each transfer is the better approach.
Remember to add the PURE-LEES™ LONGEVITY at the beginning of the transfer at the bottom of the destination tank in order to get a good mixing of the product without any additional manipulation.

What is the best timing to add PURE-LEES™ LONGEVITY?
PURE-LEES™ LONGEVITY can be added during the first racking to the destination tank after fermentation so that the wine is protected during aging. Add PURE-LEES™ LONGEVITY to the bottom of the destination tank, just before or during the beginning of the wine transfer.

Can I add the PURE-LEES™ LONGEVITY before the transfer?
Yes but once you mix it in, allow it to settle and then rack, the PURE-LEES™ LONGEVITY is no longer available to protect the wine against any additional dissolved oxygen pickup.

How long does PURE-LEES™ LONGEVITY protective effect remain in a full and closed tank?
The scavenging of dissolved oxygen by PURE-LEES™ LONGEVITY is irreversible!

What are the optimal parameters for PURE-LEES™ LONGEVITY action (T°C, pH, Total Acidity, etc.)?
Under normal white and rose wine aging and storage parameters, we haven't observed different efficiencies of oxygen uptake by PURE-LEES™ LONGEVITY. However, the dissolution of oxygen depends on temperature.
The lower the temperature the higher the solubility (a decrease of 5°C induces 10% more solubility).
The oxidation reactions are favored when temperatures increase (favor chemical oxidative reactions).

At what winemaking stage is it recommended to use PURE-LEES™ LONGEVITY?
As soon as the fermentations are completed to protect the wine during the aging/storage steps and it's recommended to add PURE-LEES™ LONGEVITY at the first rack-off after fermentation(s), under powder form into the bottom of the destination tank at the beginning of the wine transfer.

If I transfer my wine after adding PURE-LEES™ LONGEVITY:

- Do I lose the effect?
  If the wine is separated from the insoluble parts that constitute PURE-LEES™ LONGEVITY, then PURE-LEES™ LONGEVITY won't be in contact anymore and will not be acting. As long as the PURE-LEES™ LONGEVITY remains in contact with the wine, PURE-LEES™ LONGEVITY will be active to consume the dissolved oxygen as long as the maximum oxygen consumption capacity has not been reached (1mg/L for 20g/hL of PURE-LEES™ LONGEVITY).
- Can I use it again? Is it recommended?
  It's more recommend to make a new addition of fresh PURE-LEES™ LONGEVITY, than use the lees from a first treatment since it may already be close to saturation and no longer able to take up any additional dissolved oxygen.
- If I make multiple additions of PURE-LEES™ LONGEVITY, to the same wine what dosage shall I use?
  If the wine is submitted to successive transfers, a lower dosage of 10g/hL can be applied several times successively during each transfer by adding it onto the bottom of the destination tank at each operation.

- Is there a legal limit on the total amount of PURE-LEES™ LONGEVITY allowed to treat a wine?
  As PURE-LEES™ LONGEVITY is inactivated yeast, most countries do not set an upper limit however avoid adding more than 40g/hL as it may make the resulting wine heavy.
- Does the PURE-LEES™ LONGEVITY effect remain once the wine is bottled or disappears progressively?
  Once PURE-LEES™ LONGEVITY is not in contact anymore with the wine, the protective effect (linked to dissolved oxygen consumption) is no longer present. However, all the earlier benefits of having prevented the wine from oxygen and oxidation phenomena will exist.
- Is it recommended to use PURE-LEES™ LONGEVITY when the wine has a high CO_2 content?
  Even when a wine CO_2 content is high, PURE-LEES™ LONGEVITY will act as an oxygen scavenger.

INTERACTIONS BETWEEN PURE-LEES™ LONGEVITY AND OTHER WINEMAKING STEPS/PRACTICES

Is there a possible effect on MLF?
When lowering the quantity of dissolved oxygen, PURE-LEES™ LONGEVITY can favor LAB growth. Wine bacteria may be able to use some of the amino-acids found in PURE-LEES™ LONGEVITY but it was not selected for that purpose.

Can I use PURE-LEES™ LONGEVITY if the wine is also aged on its own yeast lees?
Yes. Even if the wines yeast lees have the capacity to consume dissolved oxygen, they are saturated after days or weeks of aging. It is recommended to use PURE-LEES™ LONGEVITY for a higher protection against oxidation as PURE-LEES™ LONGEVITY has the specific potential to consume high levels of dissolved oxygen.

Do I have to add sulphites or ascorbic acid in addition to PURE-LEES™ LONGEVITY?
There is no specific additional need more than what the winemaker would normally use. It was observed that PURE-LEES™ LONGEVITY can help to decrease the sulphites addition.

When using PURE-LEES™ LONGEVITY, can we use lower dosages or no sulphites?
It depends. If there's no microbiological risk, PURE-LEES™ LONGEVITY can help to decrease sulphites addition due to its ability to consume oxygen and thus limit oxidation mechanisms.

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In our experimentations, we could see that on a white wine at 5 months of aging, PURE-LEES™ LONGEVITY at 20g/hL could be as efficient at limiting oxidation as a 60mg/L addition of sulphites. But what has been observed on some wines cannot be generalized to any white wine. However PURE-LEES™ LONGEVITY remains a powerful tool to help to decrease sulphites.

What are PURE-LEES™ LONGEVITY's advantages compared to sulphites or ascorbic acid?
PURE-LEES™ LONGEVITY is a biological tool and not a chemical.

Is it recommended to use PURE-LEES™ LONGEVITY even when wine has been treated with OPTIMUM WHITE®? What is the most efficient? What would be the recommended dosages when both are used in the process?
OPTIMUM-WHITE® (OMW) and PURE-LEES™ LONGEVITY are different tools for different addition timings even if both have antioxidant properties.
OMW was developed for an application at the earliest steps of winemaking in order to prevent oxidation of color and aromas thanks to the release of glutathione.
When it comes to protect wines, PURE-LEES™ LONGEVITY is definitely the best tool as its ability to consume oxygen (which is wines n°1 enemy during aging/storage) is much higher than OMW's one.
For the best overall protection against oxidation we recommend using 20-30g/hL of OMW at the beginning of AF and 20g/hL of PURE-LEES™ LONGEVITY after fermentations after the first rack-off.

What are PURE-LEES™ LONGEVITY's advantages compared to pure glutathione?
- First of all, PURE-LEES™ LONGEVITY is an authorized practice in winemaking whereas pure glutathione is not.
- PURE-LEES™ LONGEVITY is a biotechnological tool and not chemical like pure GSH is.
- PURE-LEES™ LONGEVITY has a much higher capacity to consume dissolved oxygen in wine and thus is more adapted to aging/storage steps where oxygen is the n°1 enemy of wine quality. By acting at the source of the oxidation phenomena by scavenging oxygen, PURE-LEES™ LONGEVITY helps to slow down wines oxidative evolutions giving the wine greater longevity.

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Can I add PURE-LEES™ LONGEVITY to a clarified wine without needing to clarify the wine again?
No since PURE-LEES™ LONGEVITY is inactivated yeast and not completely soluble you will need to filter or remove the insoluble fraction.

Can it be applied with other enological products (compatible and incompatible products list)?
As for any other SIY, no specific recommendation…

If I use desoxygenation, can I use PURE-LEES™ LONGEVITY, what dosage?
There's no incompatibility of action. Desoxygenation is a punctual treatment. PURE-LEES™ LONGEVITY can have both punctual and remaining actions.

My winery is equipped with a desoxygenation system. What advantage does PURE-LEES™ LONGEVITY present compared to desoxygenating?
Probably easier to handle for some smaller volumes? We don't have comparative trial experience.
Desoxygenation is a punctual and curative treatment that doesn't prevent the wine from oxidation when an additional entrance of oxygen occurs in the following steps; whereas PURE-LEES™ LONGEVITY will remain active/protective as long as the system is not saturated.

PURE-LEES™ LONGEVITY AND IMPACT ON SENSORY QUALITY

Does PURE-LEES™ LONGEVITY have an organoleptic impact or is it neutral?
Aside from the protective effect against oxidation that impacts aromatic freshness, intensity and color, PURE-LEES™ LONGEVITY has an impact on wine mouthfeel and balance like other SIY due to its polysaccharide content.

Does PURE-LEES™ LONGEVITY cause any negative sulfur like off- notes?
As PURE-LEES™ LONGEVITY is 100% inactivated yeast there is no sulfur reductase issue as you can sometimes have with post AF yeast lees. If the wine already has sulfur like compound issues you can treat it along with other SIY products such as REDULESS and NOBLESSE. Contact your local Lallemand representative for assistance.

Does PURE-LEES™ LONGEVITY impart a Yeast flavor?
In all the trials we've made, sensory analysis was run on the controls and treated wines and no yeast flavor was observed in our experimental conditions (20-40g/hL of PURE-LEES™ LONGEVITY). Generally, the PURE-LEES™ LONGEVITY treated wines were perceived with more fruit and freshness.

PURE-LEES™ LONGEVITY AND WINES OTHER THAN STILL WHITE WINES

PURE-LEES™ LONGEVITY is mainly recommended for whites or can it also be used for rosé and red wines?
PURE-LEES™ LONGEVITY can be used for rosé wines as the winemaking process and oxidation issues are very similar to whites even though rosé wines have a higher content of polyphenols compared to white wines.
Regarding red wines, the polyphenolic content already ensures a protection of such wines against oxidation. However, we suspect an action related to oxygen consumption could still be useful in red winemaking.

Do you have experience with PURE-LEES™ LONGEVITY for sparkling wines? Can it be applied during the second fermentation in bottle or in the expedition liquor?
Trials are on-going but we believe that PURE-LEES™ LONGEVITY application will be beneficial on reserve wines during their storage before blending and 2nd fermentation.
PURE-LEES™ LONGEVITY would not be suitable for use in the dosage due to the insoluble inactivated yeast fractions found in PURE-LEES™ LONGEVITY.

Is PURE-LEES™ LONGEVITY authorized for organic wines production?
PURE-LEES™ LONGEVITY does not contain any synthetic ingredients but it depends on the organic certifier and any regional organic winemaking limitations that apply.

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LONGEVITY

FAQ

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