LALVIN BM 4X4™

Saccharomyces cerevisiae var. *cerevisiae*
Selected active dry wine yeast

Positive impact on both red and white wines

YSEO™ PROCESS
Research in collaboration with Washington State University

For over 25 years, Lallemand has been selecting the best wine yeasts from nature. Increasingly demanding fermentation conditions have led Lallemand to develop a new production process for these natural (100% natural and GMO-free) yeasts. Since 2006, the YSEO™ process has optimised the reliability of alcoholic fermentation, reducing the risk of organoleptic deviations.

Dynamic synergy

The LALVIN BM 4X4™ is based on dynamic synergy of specific yeast strains to optimize the sensory profile of the wine and with reliable fermentation kinetics. This concept combines the unparalleled advantages of LALVIN BM 45™ – known and appreciated around the world for contributing to round mouth feel and stable colour – with the capability to consistently complete fermentations in diverse and difficult conditions.

Applications

During alcoholic fermentation, LALVIN BM 4X4™ releases a significant quantity of parietal polysaccharides, including certain molecules that have the remarkable ability to bind and stabilize the polyphenols in the must. This increases the stability of the colour and systematically lowers the astringency of the tannins. The quantity and the quality of the polysaccharides released during fermentation, followed by yeast cell autolysis, facilitate the production of red wines that respond to consumer expectations. LALVIN BM 4X4™ also increases roundness in white wines and can also help with the onset of malolactic fermentation.

The dynamic synergy of LALVIN BM 4X4™ has been considered to transmit all the advantages of LALVIN BM 45™.

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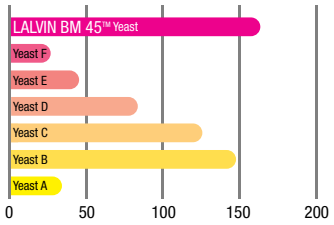
LALVIN BM 4X4™: the advantages of dynamic synergy

The quantity and quality of polysaccharides

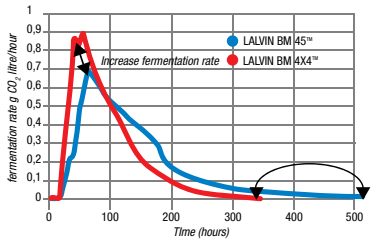
	Yeast 1	LALVIN BM 45™	% Variation
PVPP Index	38	45	+18
Ethanol index	7,7	9,2	+20
Tannic astringency	47,5	39,2	-18

Impact of BM 45 yeast on colour stability (PVPP index) and the tannic quality of a wine made from the Tannat varietal from the Madiran region (France). Measurements taken after three months of aging on lees.



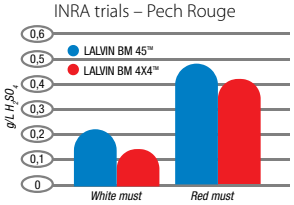
Release of polysaccharides during alcoholic fermentation on a synthetic must at 25°C *(Rosi et al.)*

LALVIN BM 4X4™: Optimized fermentation capacity



LALVIN BM 4X4™: Decrease in volatile acidity

INRA trials – Pech Rouge



LALVIN BM 4X4™: Decreased nitrogen requirement

Technical characteristics

- ✓ *Saccharomyces cerevisiae* var. *cerevisiae*
- ✓ Competitive factor K2
- ✓ Alcohol tolerance: up to 16% alcohol
- ✓ Average lag phase
- ✓ Average fermentation rate facilitates maceration management
- ✓ Optimal fermentation temperature: 16° to 28°C (depends on initial sugar level)
- ✓ Low foam production
- ✓ Facilitates malolactic fermentation
- ✓ Low SO_2 production

Packaging and storage

- Available in 500 g.
- Store in a cool dry place.
- To be used once opened.

Instructions for use

Dosage for rate : 20 to 40 g/hL

1. Rehydrate the yeast in 10 times its weight in water (temperature between 35°C and 40°C).
2. Dissolve by gently stirring and wait for 20 minutes.
3. Add the must. The difference in temperature between the must to be inoculated and the rehydration medium should not be higher than 10°C (if necessary, acclimatise the temperature of the medium by slowly adding must).
4. The total rehydration time should not exceed 45 minutes.
5. It is crucial that a clean container is used to rehydrate the yeast.
6. Rehydration in must is not advisable.
7. In musts with high alcohol potential (> 13% v/v), the addition of a 20 g/hL dose of protector GO-FERM PROTECT™ during rehydration is recommended.

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