



TECHNICAL GUIDELINES

SafBrew™ LA-02

December25
TG-LA-02 – V1

CHARACTERISTICS OF THE PRODUCT

SafBrew™ LA-02 (*Torulaspora delbrueckii*) is a non-*Saccharomyces* yeast that has been specifically selected to produce low and/or non-alcoholic beers (<0.5% ABV). This yeast only assimilates primarily simple sugars (glucose and fructose) and slowly assimilates saccharose. However, it does not assimilate maltose, maltotriose, or dextrins.

Post fermentation, this strain exhibits neutral to mild fermentation characteristics with no phenolic (spicy) notes. Sensory profiles may differ depending on the wort and fermentation conditions.

BEER STYLE

Low and/or non-alcoholic beers.

This strain is POF- and does not produce phenolic characters in the beer.

GRAVITY

The ethanol produced by **SafBrew™ LA-02** is directly correlated with the original gravity (OG) of the wort, and more specifically, the quantity of monosaccharides (DP1).

When tested, original gravities of 8°P, 10°P, 12°P, and 14°P finished with an ADF (apparent degree of fermentation) of around 5-10% with a standard mash regime of 30 mins at 65°C (149°F) and 20 mins at 74°C (165.2°F).

Original gravity	Expected alcohol content (low)	Expected alcohol content (high)
4 °P	0.09%	0.19%
6 °P	0.15%	0.30%
8 °P	0.20%	0.40%
10 °P	0.25%	0.51%
12 °P	0.31%	0.63%
14 °P	0.37%	0.75%

The exact value depends on your raw materials and mashing regime, which impacts the quantity of simple sugars available for the yeast.

FERMENTATION TEMPERATURE

SafBrew™ LA-02 is recommended between 20°C and 25°C (68 – 77°F).

For a quick fermentation, we recommend the higher end of this range.

As soon as your ADF is reached, the beer should be cold crashed and transferred to maturation. Typical fermentation time is around 3-4 days (with a fermentation temperature of around 20°C). The beer must be kept cold until pasteurization. Any cross-contaminant could otherwise take over and ferment the residual sugars. Diacetyl rest should be avoided at high temperatures.



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PITCH RATE

50-80 g/hl in primary fermentation (0.06 to 0.10 oz/gal).

Direct pitching: Pitch the dry yeast directly into the fermentation vessel over the surface of the wort at or above the fermentation temperature. Progressively sprinkle the yeast over the wort, ensuring the yeast covers the entire surface available to avoid clumping. Ideally, the yeast is added during the first part of filling the vessel; in this case, hydration can be done at a wort temperature higher than the recommended fermentation temperature, provided that the vessel is then filled with wort at a lower temperature to bring the entire wort temperature down to the fermentation temperature.

Rehydration: Sprinkle the yeast into a minimum of 10 times its weight of sterile water or boiled and hopped wort at 15°C to 30°C (59°F to 86°F). Leave to rest 15 to 30 minutes, then gently stir and pitch the resultant cream into the fermentation vessel.

Aeration: It is not necessary to aerate the wort before pitching the yeast.

Dry hopping is not recommended at fermentation temperature or at temperature higher than 4-5°C (39.2-41°F) to avoid hop creep effect, which can lead to a higher concentration of glucose that will ferment in the presence of yeast. It is strongly recommended that any dry hopping process be conducted exclusively post-fermentation, when the beer has cooled to a temperature of less than 4°C (39.2°F).

POINTS OF ATTENTION

- **For ADF:** The expected ADF is between 5 and 10%. It is strongly recommended to cold crash as soon as your ADF is in this range. Any cross-contaminant could otherwise take over and ferment the remaining sugars.
- **For beer packaging:** Due to residual sugars left in the beer, pasteurization of the packaged beer is mandatory to avoid living microorganisms remaining in the product. At pH 4.2, we recommended a minimum of 50 PU (ideally 80 to 120 PU). At a lower pH level and/or high IBU, the PU level can be adapted. Flash pasteurization is not adequate for stabilizing the beer, due to the possible presence of living microorganisms in later process steps.
- **For pH:** Due to the low attenuation of **SafBrew™ LA-02**, the acidification or pH drop will be less than typical fermentations (between pH 4.5 and 5). It is recommended to adjust the pH before and/or after fermentation to achieve flavor and microbial stability.
- **SafBrew™ LA-02 is not suitable for cropping and repitching.** Any *S. cerevisiae* or *S. pastorianus* (cross-contaminant from the brewery) that could enter the slurry would have a growing advantage over the *Torulaspora delbrueckii* as the latter cannot ferment maltose.
- Similarly, **SafBrew™ LA-02 should not be used for propagation** as any contaminant (even *S. cerevisiae* or *S. pastorianus*) would have access to the maltose/maltotriose and dominate the propagation medium.



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