Technical Data Sheet

KÖLN

KÖLSCH STYLE ALE YEAST

LalBrew™ Köln is ideal for brewing traditional Kölsch-style beers and other neutral ales. The neutral character of this strain accentuates delicate hop aromas while imparting subtle fruity esters. Through expression of a β-glucosidase enzyme, Köln can promote hop biotransformation and accentuate hop flavor and aroma. Colder fermentations will be more neutral in character, while warmer fermentations will have a more fruit-forward ester profile.

MICROBIOLOGICAL PROPERTIES

Classified as *Saccharomyces cerevisiae*, a top fermenting yeast.

Typical Analysis of LalBrew™ Köln yeast:

Percent solids	93% - 97%
Viability	≥ 1 x 10^9 CFU per gram of dry yeast
Wild Yeast	< 1 per 10^6 yeast cells
Diastaticus	Undetectible
Bacteria	< 1 per 10^6 yeast cells

Finished product is released to the market only after passing a rigorous series of tests
*See specifications sheet for details

BREWING PROPERTIES

In Lallemand's Standard Conditions Wort at 20°C (68°F) LalBrew™ Köln yeast exhibits:

Fermentation that can be completed in 7 days, a bit slower than most ale strains. This is perfectly characteristic of this strain.

Medium to High Attenuation and Medium Flocculation

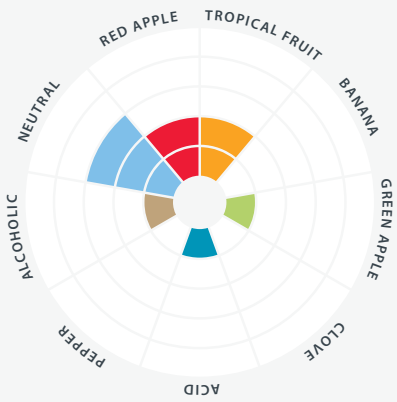
Neutral to slightly fruity and estery flavor and aroma

The optimal temperature range for LalBrew™ Köln yeast when producing traditional styles is 15°C (59°F)* to 22°C (72°F)

Lag phase can be longer compared to other ale strains, ranging from 24-36 hours

Lag phase, total fermentation time, attenuation and flavor are dependent on pitch rate, yeast handling, fermentation temperature and nutritional quality of the wort. *If you have questions please do not hesitate to contact us at brewing@lallemand.com*

FLAVOR & AROMA



QUICK FACTS

BEER STYLES
kölsch-style, neutral ales

AROMA
slightly fruity, more neutral with colder fermentations

ATTENUATION
medium to high

FERMENTATION RANGE
12 - 20°C (54 - 68°F)

FLOCCULATION
medium to high

ALCOHOL TOLERANCE
9% ABV

PITCHING RATE
100g/hL to achieve a minimum of 1 million viable cells/mL

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KÖLN KÖLSCH STYLE ALE YEAST

USAGE

The pitch rate will affect the fermentation performance and flavor of the beer. For LalBrew™ Köln yeast, a pitch rate of 100g per hL of wort is sufficient to achieve a minimum of 1 million viable cells/mL. More stressful fermentations such as high gravity, high adjunct or high acidity may require higher pitch rates and additional nutrients to ensure a healthy fermentation.

Find your exact recommended pitching rate with our Pitch Rate Calculator in our Brewers Corner at www.lallemandbrewing.com

LalBrew™ Köln may be re-pitched just as you would any other type of yeast according to your brewery's SOP for yeast handling. Wort aeration is required when re-pitching dry yeast.

STORAGE

LalBrew™ Köln yeast should be stored in a vacuum sealed package in dry conditions below 4C° (39°F). LalBrew™ Köln will rapidly lose activity after exposure to air.

Do not use 500g or 11g packs that have lost vacuum. Opened packs must be re-sealed, stored in dry conditions below 4°C (39°F), and used within 3 days. If the opened package is re-sealed under vacuum immediately after opening, yeast can be stored below 4C° (39°F) until the indicated expiry date. Do not use yeast after expiry date printed on the pack.

Performance is guaranteed when stored correctly and before the expiry date. However, Lallemand dry brewing yeast is very robust and some strains can tolerate brief periods under sub-optimal conditions.

If you have questions, do not hesitate to contact us. We have a team of technical representatives happy to help and guide you in your fermentation journey.

REHYDRATION

Rehydration of LalBrew™ Köln in sterile water is recommended prior to pitching into wort in order to reduce stress on the cell as it transitions from dry to liquid form. For many fermentations, this stress is not significant enough to affect fermentation performance and flavor, so good results may also be achieved when pitching dry yeast directly into wort. We highly recommend rehydration in harsher fermentation conditions such as high gravity or sour wort where the added stress of dry-pitching is more likely to have a greater impact on the finished beer. Use of a rehydration nutrient such as Go-Ferm Protect Evolution has been shown to improve fermentation performance for difficult fermentations.

Rehydration guidelines are quite simple and present a much lower risk of contamination than a starter, which is unnecessary when using the recommended pitch rate of dried active yeast.

Sprinkle the yeast on the surface of 10 times its weight in clean, sterilized water at 30-35°C (86-95F). Do not use wort, or distilled or reverse osmosis water, as loss in viability may result. **Stir gently**, leave undisturbed for 15 minutes, then stir to suspend yeast completely. Leave it to rest for 5 more minutes at 30-35°C.

Without delay, adjust the temperature to that of the wort by mixing aliquots of wort with the rehydrated yeast. Wort should be added in 5 minute intervals and taking care not to lower the temperature by more than 10°C at a time. TTemperature shock of >10°C will cause formation of petite mutants leading to extended or incomplete fermentation and possible formation of undesirable flavors. Do not allow attemperation to be carried out by natural heat loss. This will take too long and could result in loss of viability or vitality.

Inoculate without delay into cooled wort in the fermenter. LalBrew™ Köln yeast has been conditioned to survive rehydration. The yeast contains an adequate reserve of carbohydrates and unsaturated fatty acids to achieve active growth. It is unnecessary to aerate wort upon first use.

CONTACT US

For more information, please visit us online at
www.lallemandbrewing.com

For any questions, you can also reach us via email at
brewing@lallemand.com