



TECHNICAL DATA SHEET

MUNICH WHEAT BEER YEAST

Munich Wheat Beer yeast originated in Bavaria, Germany and is a neutral strain which can be used to produce a wide variety of wheat-based beer styles. With only slight esters and phenol production, Munich's allows brewers to showcase other spice additions. Traditional styles brewed with this yeast include but are not limited to American Wheat, Belgian White, Berliner weiss, Gose, Hefeweizen, Dunkelweis, and Weizenbock.



MICROBIOLOGICAL PROPERTIES

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

Typical Analysis of Munich yeast:

Percent solids 93% - 97%

Living Yeast Cells $\geq 5 \times 10^9$ per gram of dry yeast

Wild Yeast < 1 per 10^6 yeast cells

Bacteria < 1 per 10^6 yeast cells

Finished product is released to the market only after passing a rigorous series of tests

*According to the ASBC and EBC methods of analysis



BREWING PROPERTIES

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

Vigorous fermentation that can be completed in 4 days

Medium to High attenuation and Low flocculation

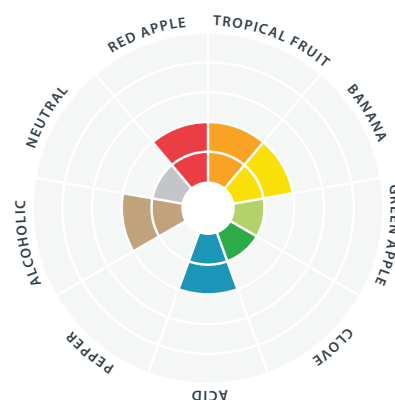
Aroma and flavor is somewhat estery with banana notes

The optimal temperature range for Munich yeast when producing traditional styles is 17°C(63°F) to 22°C(72°F)

Fermentation rate, fermentation time and degree of attenuation are dependent on inoculation density, 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

wheat-based beers,
Weizen and Hefeweizen

AROMA

estery, banana

ATTENUATION

medium to high

FERMENTATION RANGE

17 - 22°C (63 - 72°F)

FLOCCULATION

low

ALCOHOL TOLERANCE

12% ABV

PITCHING RATE

50 - 100g/hL to achieve a
minimum of 2.5 - 5 million cells/mL



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USAGE

Depending on the desired gravity of the beer, among other variables, different yeast pitching rates should be applied. For Munich yeast, pitching rate varies between 50 grams and 100 grams of active yeast to inoculate 100 liters of wort.

A pitching rate of 50g per 100L of wort to achieve a minimum of 2.5 million viable cells per ml.

A pitching rate of 100g per 100L of wort to achieve a minimum of 5 million viable cells per ml.

The pitching rate may be adjusted to achieve a desired beer style or to suit processing conditions. Changes in the brewing process or fermentation parameters such as pitching rate and fermentation temperature can increase or minimize ester and spice contributions.

Munich has an ABV tolerance of 12%. For beers above 12%, the yeast will require nutrient addition such as 1g/hL of Servomyces.

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



REHYDRATION

Rehydration of Munich is recommended for use, and will reduce osmotic stress on the yeast when rehydrated and pitched in liquid form. Rehydration guidelines are quite simple, and present a much lower risk of contamination than a starter, which is unnecessary with dried active yeast.

Sprinkle the yeast on the surface of 10 times its weight in clean, sterilized water at 30-35°C (86-95°F). Do not use wort, or distilled or reverse osmosis water, as loss in viability will result. DO NOT STIR. Leave undisturbed for 15 minutes, then stir to suspend yeast completely, and leave it for 5 more minutes at 30-35°C. Then adjust temperature to that of the wort and inoculate without delay.

Attemperate in steps at 5-minute intervals of 10°C to the temperature of the wort by mixing aliquots of wort. 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.

Temperature shock, at greater than 10°C, will cause formation of petite mutants leading to long-term or incomplete fermentation and possible formation of undesirable flavors.

Munich yeast has been conditioned to survive rehydration. The yeast contains an adequate reservoir of carbohydrates and unsaturated fatty acids to achieve active growth. It is unnecessary to aerate wort upon first use.

When using Lallemand Brewing Yeasts, you may repitch the yeast just as you would any other type of yeast according to your brewery's SOP for yeast handling.



STORAGE

Munich yeast should be stored dry below 10°C (50°F)

Munich will rapidly lose activity after exposure to air. Do not use 500g or 11g packs that have lost vacuum. Opened packs must be re-closed, stored in dry conditions below 4°C, and used within 3 days. If the opened package is re-vacuum sealed immediately after opening, yeast can be stored for up to two weeks below 4°C.

Do not use yeast after expiry date printed on the pack.

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