

NOTTINGHAM

ALE YEAST

SACCHAROMYCES CEREVISIAE

NATURAL
KOSHER
GMO FREE

1. Origin

Nottingham British Ale yeast is a single strain selected from a multiple commercial culture used in the United Kingdom. The propagation and drying processes have been specifically designed to deliver high quality beer yeast that can be used simply and reliably to help produce ales of the finest quality. No colours, preservatives or other unnatural substances have been used in its preparation. The yeast is produced in ISO 9002 certified plants.

2. Microbiological Properties

- Classified as *Saccharomyces cerevisiae*.
 - A top fermenting yeast.
 - The typical analysis of the active dry strain:

Percent solids	93%–95%
Living yeast cells	$\geq 5 \times 10^9$ per gram of dry yeast
Wild yeast	< 1 per 10^6 yeast cells (Lysine method)*
Bacteria	< 1 per 10^6 yeast cells*
 - Finished product is released to the market only after passing a rigorous series of tests.
- *According to ASBC and EBC methods of analysis.

3. Brewing Properties

- Quick start to fermentation, which can be completed in 4 days above 17°C.
- High attenuation, reaching a final gravity near 1008 (2°P).
- Fermentation rate, fermentation time and degree of attenuation is dependent on inoculation density, yeast handling, fermentation temperature and the nutritional quality of the wort.
- Shows flocculation at completion of fermentation, and settling is promoted by cooling and use of fining agents and isinglass.
- The aroma is slightly estery, almost neutral and does not display malodours when properly handled. Because of flocculation, it may tend to slightly reduce hop bitter levels.
- Best when used at traditional ale temperatures after rehydration in the recommended manner.
- Lager-style beer has been brewed with Nottingham, however low fermentation temperature requires adaptation of the pitching rate to ensure proper attenuation.

4. Usage

- When 100 g active dry yeast is used to inoculate 100 litres of wort, a yeast density of 5–10 million cells per millilitre is achieved. Brewer may experiment with the pitching rate to achieve a desired beer style or to suit processing conditions.
- Sprinkle the yeast on the surface of 10 times its weight of clean, sterilized (boiled) water at 30–35°C. 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 flavours.
- Nottingham British Ale 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.

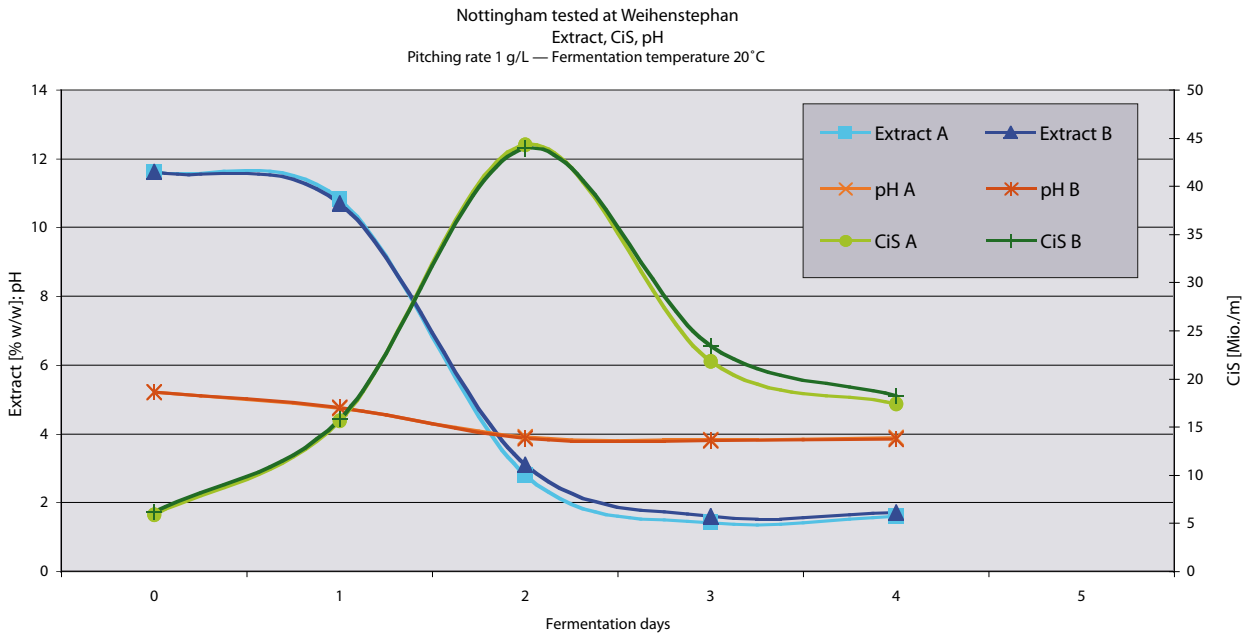
5. Storage

- All active dry yeast should be stored dry and below 8°C. The packaging should remain intact.
- Activity loss is about 25% per year at 8°C and 50% per year at 22°C in unopened sealed packs.
- Nottingham will rapidly lose activity after exposure to air. Do not use 500 g or 10 kg packs that have lost vacuum. Opened packs must be re-closed, stored in dry conditions below 4°C, and used within 3 days; 11 g sachets are not vacuum packed but are flushed with nitrogen gas to protect the yeast.
- Do not use yeast after expiry date printed on the pack.

LALLEMAND

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LALLEMAND NATURAL BREWING YEAST

SO EASY TO STORE

- Active dry brewing yeast has a shelf life of 2 years when stored below 8°C

SO EASY TO USE

- Follow simple rehydration instructions and addition rates.

SO VERSATILE

- Suitable for many beer types:
 - I use Nottingham yeast in eight different ales.*
 - Douglas Ross, Brewmaster of Bridge of Allan Brewery, Scotland
 - I use Nottingham for all my beers and nobody can tell I use dry yeast*
 - Michele Lowney, Brewmaster of the Grizzly Paw, Canmore, Alberta, Canada

SO SUCCESSFUL

- *I am delighted to endorse Nottinham Ale Yeast.*
 - Graham Trott, Triple FFF Brewery, Alton, England
- 35 industry awards including Beer of Britain 2008 for Alton Pride brewed with Nottingham

SO INTERNATIONAL

- Used in hundreds of breweries in Britain, U.S.A., Canada, Japan, South America and worldwide.



LALLEMAND BREWING



SIEBEL
INSTITUTE OF TECHNOLOGY

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