



NATBIO
PUTTING NATURE FIRST



TURBO YEAST

NATURE BIOCHEM IS PROUD TO ANNOUNCE LAUNCH OF PREMIUM RANGE OF YEAST AND TURBO YEAST PRODUCTS OF INNOVATIVE SWEDISH COMPANY "GERT STRAND AB" IN INDIA FOR IMPROVING YOUR FERMENTATION EFFICIENCY. GIVING YOU THE ADVANTAGE!

NATURE BIOCHEM

Turbo Yeast is a mix of complex nutrients and high volume alcohol tolerant yeasts. Turbo Yeast can quickly ferment a pure sugar solution to 18-20% alcohol volume content. The Turbo Extreme Yeast can to a limited extent (up to 25 liters of mash) reach 23%, which is as much as it possibly can be obtained through fermentation. All Gert Strand Turbos ferment very effectively. However, instructions regarding the fermenting temperature must be carefully followed. These Turbos are all-natural yeasts and are all in one bag, with the nutrients and yeast mixed.



Our Turbo yeasts have the following benefits:

- Maximum temperature tolerance
- Maximum alcohol production
- Maximum shelf life (even better if kept in a fridge)
- Maximum osmotic tolerance (sugar tolerance)
- Maximum osmotic/alcohol/acidity/alcohol tolerance
- Minimum volatile production, pure fermentation

TURBO YEAST FOR DISTILLERIES

Does your distillery have problems with yeast? Many years ago our company produced the first Turbo yeast, consumer packed for the hobby market in Scandinavia. We have been supplying Turbo yeast to distilleries for years. Turbo yeast is comprised of a mix of extremely alcoholtolerant yeast and complex nutrients that quickly ferment mash into alcohol.

Turbo Yeast:

- Ferments sugar, corn, molasses, barley, wheat, potato waste, etc.
- Faster fermentation – higher production with the same production costs.
- Has high temperature tolerance: +40C for 14%, 38C for 16-17%.
- Has high alcohol tolerance, easily fermenting to 17%.
- Has purer fermentation: 1% less fusel replaced by pure alcohol, saving 2% sugar from being wasted.
- Contains no wild yeast and no bacteria: you always have good results.
- Produces 17% alcohol using the same amount of nutrients as normally used in weaker mash.
- Tolerates more solids and sugar concentrations – top osmotic tolerance.
- Stands more heat – makes 16-17% in 38C liquid without problem.
- Pure fermentation – often 1 liter more alcohol per 100 liters.

We have been consulted to solve problems having to do with:

- Stuck fermentation
- Too low an alcohol yield
- Impure fermentation
- Too low sugar-to-alcohol conversion
- Quality problems or taste problems

So far, we have always ended up solving the problem.

Temperature Tolerant Turbo Yeast

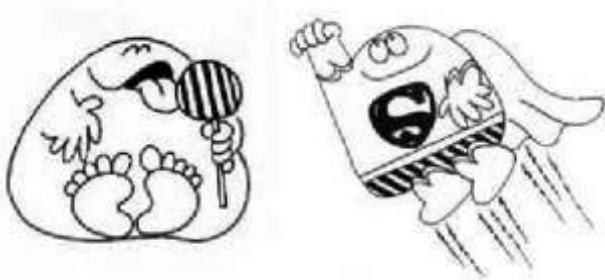
This is an osmo-tolerant (high sugar concentration) and temperature-tolerant Turbo yeast that ferments very pure to 17% and tolerates extreme stress.

Temperature Tolerant Turbo Yeast is delivered in 25-kg sacks. You can test order a 25-kg sack; do a test run and compare with your current yeast. Regular orders are always produced after you order (to give you the freshest possible yeast). Dosage is 3.6 kg to 1000 liters fermentation.

How Turbo Yeast Works

Normal Yeast Cell Turbo Charged (activated) Yeast Cell Turbo Charged Yeast (Turbo Yeast) is a Swedish invention. A special temperature- and alcohol-tolerant yeast strain is fed with unique micro- and macro nutrients that provide nitrogen, vitamins, and minerals in a special formula. Those nutrients are mixed with the yeast and "Turbo Charge" the yeast. This means that Turbo yeast gets extremely strong, and vital. It withstands extreme stress from osmotic pressure, temperature, alcohol content in mash and it performs at its peak at the end of fermentation.

A Turbo Charged yeast cell outperforms any ordinary yeast cell. Sometimes one to three times better.



Normal Yeast Cell Turbo Charged (activated) Yeast Cell

Turbo yeast benefits:

- Ferments corn, molasses, sugar, barley, wheat, potato waste, etc.
- Faster fermentation – higher production to the same production costs. Has high temperature tolerance: 40°C for 14%, 38°C for 17%.
- Has high alcohol tolerance, easily fermenting to 16-17%.
- Has purer fermentation: 1% less fusel replaced by pure alcohol, saving 2% sugar from being wasted.
- Contains no wild yeast and no bacteria: you always have good results.
- Produces 17% alcohol using the same amount of nutrients as normally used in weaker mash.
- Stands more solids and sugar concentrations – top osmotic tolerance.
- Stands more heat – makes 17% in 38°C corn or sugar mash without problem.
- Pure fermentation – often 1 liter more alcohol per 100 liters.

How to use Turbo Yeast

Distilleries that use yeast directly in the mash Use Turbo Yeast directly in mash to achieve up to 17% alcohol. Do not add any nutrients, pH adjustments, anti foam etc.: only Turbo yeast.

Distilleries that make a pre fermentation Start a pre fermentation and grow up the yeast to maximum cells per ml or any numbers you do today. Transfer this slurry to a larger batch of mash, where it is used as yeast. This gives great savings in yeast cost. If your distillery re use the yeast in pre fermentor, add micro nutrients 0.1 gram/liter to all pre fermentations. Then you will see why clients call them "Miracle nutrients".

Turbo yeast solves problem with:

- Stuck fermentation from over heating and several other reasons
- Too low an alcohol yield
- Impure fermentation
- Too low sugar-to-alcohol conversion
- Quality problems or taste problems

Other ways to speed fermentation

If you are not happy with your fermentation speed, please contact us. We will help you speed up your fermentation by optimizing micro nutrients, macro nutrients, yeast, procedures, temperature etc., first in your laboratory and then in a full-scale test.

Other solutions to a common problem

The most appreciated product is the **Micro Nutrients** – and it works with all yeast strains. Some clients call them “**Miracle Nutrients**”. By using micro nutrients in pre fermentation the yeast cells grow to be **extremely strong and healthy**. Therefore, the yeast perform better in fermentor, giving a better fermentation that complete to dryness. On top of this, it often happen that one get 0.2-0.8% stronger mash because yeast is strong enough to ferment to lower dryness.

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