TY-48[®]

A high alcohol, osmotolerant active dried yeast formulated with complete nutrient complex designed for pure sugar wash fermentations up to 20 % ABV.



PRODUCT DESCRIPTION AND FUNCTION

TY-48® is based on an active dried yeast strain with unusually high alcohol and osmotic pressure tolerances—formulated with a complete macro and micro nutrient complex optimised for pure sugar fermentations, TY-48® is able to ferment pure sugar washes up to 20 % ABV. Although designed for use with highly refined sugar substrates, TY-48® can be used with any fermentable sugar to ferment very high alcohol. Alternatively, TY-48® can be used for rapid fermentation to lower alcohol levels (e.g. 14 % ABV).

TY-48® contains a chemically defined nutrient complex optimized for fermentation of very high ABV alcohol bases for use in beverage applications including FMB/CMB hard sodas. TY-48® can also be used for distillation of spirit alcohol from a variety of substrates. The nutrient complex in TY-48® contains all the essential macro and micro nutrients required for healthy fermentation, including nitrogen (urea source), phosphate, magnesium, B vitamins and trace minerals.

TECHNICAL CHARACTERISTICS

• Yeast Classification: Saccharomyces cerevisiae

Recommended Temperature Range: Max. 27 °C for 20 % ABV, max. 36 °C for 14 % ABV)

• Killer Factor: Neutral

• Alcohol Tolerance: ≥ 20 % ABV

Viable Yeast Cells: > 6 x 10⁹ cfu/g

Total bacteria: < 3 x 10³ cfu/g

• Wild Yeast: $< 1 \times 10^3 \text{ cfu/g}$

• Mould: $< 5 \times 10^2 \text{ cfu/g}$

Coliforms: < 10 cfu/g

Pathogens (Salmonella, E. coli etc): Absent in 25 g

Lead: < 3 mg/kg

Arsenic: < 1 mg/kg

Heavy Metals (as Pb):
< 10 mg/kg

GMO Status: GMO Free

Contact Us

Bevie UK, Philip Jones House, Poole Hall Industrial Estate, Ellesmere Port, Cheshire, CH66 1ST, United Kingdom

tel: +44 (0) 151 356 5985 email: info@pathfinder-uk.co web: pathfinder-uk.co



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DOSAGE AND APPLICATION

If fermentation vessel has mixing facility, pitch directly and mix well to dissolve nutrients before fermenting. Alternatively, pre-mix with 10x times its weight of water at 30-40 $^{\circ}$ C (86-104 $^{\circ}$ F) and mix for 5 minutes before pitching. When pitched at the recommended rate, the viable cell count should be > 3.2 x 10 7 cells/ml for up to 20 % ABV fermentation, or > 1.6 x 10 7 cells/ml for up to 14 % ABV.

TY-48® can tolerate liquid fermentation temperatures up to 38-40 °C / 100-104 °F, but alcohol tolerance is impeded at these temperatures. For optimum performance and quality it is recommended to ferment at 22-24 °C (72-75 °F) for 20 % ABV (lower ABV fermentations up to 14 % ABV can be fermented warmer at 30-32 °C (86-90 °F) if rapid fermentation is required). Note that TY-48® does not require rehydration to activate the yeast and does not have any specific oxygenation requirements.

Application dosages for TY-48® are as follows;

- 2.7 g/L (0.36 oz/US Gal) for fermentation to 14 % ABV
- 5.4 g/L (0.72 oz/US Gal) for fermentation to 20 % ABV

Based on recommended pitch rates, complete fermentation up to 20 % ABV is expected in around 6-8 days at 22-24 °C (72-75 °F) or 3-4 days at 30-32 °C (86-90 °F) for up to 14 % ABV. If necessary, pitch rate can be optimized through trials to suit the particular requirements of the user. Note that TY-48® is not suitable for propagation or post-fermentation recovery for re-use.

Note that TY48[®] will generate unexpected quantities of heat during fermentation—if fermentation liquid temperature is not controlled and exceeds the maximum tolerance at any time the ethanol tolerance will be impeded.

PACK SIZES

1000 g bags, or 10 kg, or 25 kg poly-lined paper sacks.

SAFETY

This material is non-hazardous when used as directed. MSDS available on request.



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STORAGE

10 kg - 25 kg sacks: Store in original, sealed packaging away from direct sunlight. If stored below 10 °C / 50 °F this product will have a shelf life of up to 24 months. At 20 °C / 68 °F storage temperature, shelf life will be reduced to 12 months. After opening, re-seal tightly and keep refrigerated below 10 °C for 6 weeks.

1000 g bags: Store in a cool, dry place away from direct sunlight for a shelf life of 18 months. After opening re-seal tightly and keep refrigerated below 10 °C for 2 weeks.



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