DistilaMax[™] XP

Yeast selected for use in the production of malted grain Whisky

APPLICATIONS

- DistilaMax[™] XP is a Saccharomyces cerevisiae var.diastaticus selected especially for its ability to ferment maltose, maltotriose and other sugars in malted barley feedstock.
- DistilaMax XP displays a good temperature tolerance and performs well at temperatures from 20 °C up to 35 °C.
- DistilaMax XP is recommended for use in the production of whisky, by fermentation of wort made from malted grain.
- DistilaMax XP produces a congener profile that is well-suited to malted barley whisky such as increasing complexity and fruity characters.

RESULTS WITH DISTILAMAX XP

- DistilaMax XP in comparison with other yeasts used in the Scotch Whisky industry, performs well on malted barley in regard to ethanol content, as demonstrated in **Figure 1.** During fermentation temperatures can be quite high, therefore it is important to select a yeast which can operate well at temperatures higher than 32°C.
- **Figure 2** demonstrates the results of 3 yeasts used in the whisky industry in regard to ethanol concentration at various temperatures. DistilaMax XP performs well within the temperature range of 20 °C 35 °C but it is recommended to control the temperature, if possible, to around 30 °C.
- DistilaMax XP is used for the production of malt whisky where complexity and fruity aromas are among the key indicators of quality. **Figure 3** demonstrates the ability of 3 yeasts to produce fruity aromas, resulting in DistilaMax XP producing more complexity.







Figure 3: Ester concentration at 28°C with 3 yeasts on malted barley whisky.



Figure 2: Impact of temperature on ethanol content with various yeasts used in the production of whisky.

- Ethyl decanoate
- Ethyl octanoate
- Ethyl hexanoate
- Ethyl dodecanoate

Ethyl decanoate: Floral-like aromas Ethyl octanoate: Floral-like aromas Ethyl hexanoate: Fruity aromas Ethyl dodecanoate: Soap-like notes





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CHARACTERISTICS

• Solids (dry weight): Viable cells (CFU/g): 95.5 +/- 2.5 % > 1 x 10^e 10

• Total wild yeast (CFU/g): < 1000

DistilaMax XP is not genetically modified and is Kosher.

DOSAGE

- The optimal yeast dosage is variable according to individual distillery production processes.
- Normal dose rate 0.50 1.0 gram of yeast per litre of wort (dosage: 500 1000 ppm).

INSTRUCTIONS OF USE

Lallemand Biofuels & Distilled Spirits recommends the rehydration of DistilaMax XP:

- 1. For rehydration, use a clean container. Do not use demineralized water.
- 2. Rehydrate the yeast in clean water; the water should be 10 x the weight of the yeast, and at a temperature between $36 \degree C 38 \degree C$.
- **3.** Suspend contents carefully by gently stirring and then wait for 15 20 minutes maximum (minimum 10 minutes) before moving onto the next step.
- **4.** Add this preparation to the wash. If there is a temperature difference of more than 8 °C between the wash to be inoculated and the rehydration solution, add some wash slowly into the rehydration solution to reduce this temperature difference.
- 5. Once the sealed-vacuum bag is open or broken, use yeast promptly.

STORAGE, HANDLING AND PACKAGING

- DistilaMax XP should be stored in a cool and dry area away from heat and direct sunlight for maximum stability.
- Shelf life: 3 years from the date of manufacture if the vacuum-seal is not broken.
- Packaging: DistilaMax XP is available in vacuum-sealed foil bags in 10 kilograms or boxes of 20 x 500 grams.

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