



# Brewline®

## THE CRAFT BREWER'S PORTFOLIO

### TECHNICAL DATA SHEET

# CraftZYM® EMERALD

#### FORMULATION

CraftZYM® Emerald is a highly active  $\beta$ -glucosidase enzyme preparation used for the enhancement of hop flavor and aroma. Increases the extraction ratio of the flavor active components in hops. Emerald is especially effective in “dry-hopped” beers.

This enzyme, produced from a selected non-GMO *Aspergillus niger* strain.

#### APPLICATION AREA

CraftZYM® EMERALD acts on the glucosides present in the hops, freeing the active aromatic compounds. The overall increase in aromatic intensity varies according to the hops variety.

#### RECOMENDED DOSAGES

For optimal effect, CraftZYM® EMERALD should be added during dry hopping. It can also be added at any time after fermentation.

Dosage: 10 – 20 mL/hL of green beer

#### INSTRUCTIONS FOR USAGE

Dilute the enzyme in cold water or in the beer. To be added after fermentation, mix well.

A test can also be made on the finished beer in bottle in order to optimise enzyme dosage.

#### SPECIFICATIONS

Colour & Appearance	Dark brown liquid
Stabilising agents	Not added
Preservatives	Not added
pH	4,7
Heavy metals	< 30 ppm
Arsenic	< 3 mg/kg
Lead	< 5 mg/kg

Density	1,126 g/mL
Total colony count	<5 x10 <sup>4</sup> /g
Coliforms	< 30 UFC/g
<i>Escherichia coli</i>	Absent in 25 g
Salmonella	Absent in 25 g
Mycotoxins	Negative test

#### STORAGE

Store in its original packaging hermetically sealed, in a cool (<10°C), dry and odorless place.

Respect the optimal use-by-date appearing on the conditioning. Use quickly after opening.

Storage at temperatures above 20°C could damage the enzyme.

#### CONDITIONING

1 kg bottle (5 kg box).

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For use in beer brewing. For the production of products destined for direct human consumption. This document is provided for information purposes only, without commitment or guarantee, according to our current knowledge. Product in compliance with the purity specifications recommended by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) and by the FCC for enzymes used in foodstuff processing. The product's conditions of use are subject to adherence to current legislation and local standards.

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