



DISCOVER AND DELIVER

MagiZyme® XL

Brewing Enzyme

MagiZyme® XL is a β -glucanase derived from a selected strains of *Humicola insolens* and *Bacillus amyloliquefacie*

Application areas for **MagiZyme® XL** include non-carbohydrate haze removal, improving conditions in mash filtration, wort viscosity reduction.

This enzyme is permitted for general use as a processing aid under FSANZ Standard 1.3.3 E.C. 3.2.1.6.

Typical Characteristics

Activity: 500 ZBGU /g (minimum)
Appearance: Light Brown liquid
pH: 4.8 – 5.2
Grade: Food grade, Kosher
Specific gravity: 1.0 – 1.2 g/mL

Unit Definition

The activity of **MagiZyme® XL** enzyme is expressed in BGU/g. The assay method is available upon request.

pH Dependency

The pH range for the activity of **MagiZyme® XL** is approximately 3.5 to 6.5, with optimum performance at pH 5.5. The exact pH optimum will depend on process variables, including temperature, time and substrate nature.

Temperature Dependency

The enzymatic activity of **MagiZyme® XL** is effective in mashing regimes with the optimum range being between 55°C-70°C. The exact temperature optimum will depend on process variables, such as pH, time and substrate nature.

Inactivation

The enzyme will be inactivated during wort boil.

Application Recommendations

MagiZyme® XL β -glucanase possesses considerably high xylanase side activities, including a unique arabino- xylanase, which contributes highly to produce low viscosity wort resulting in best beer filtration, using any type of malt.

Synergistic combinations of enzyme hydrolysis contribute to achieving, best results in effective viscosity reduction degrading well to moderately modified malt.

MagiZyme® XL improves lauter tun, mash filter run-off times, bed drainage and increases extract recovery. The enzyme enhances the removal of carbohydrate hazes from well to moderately modified malt.

MagiZyme® XL improves beer filtration performance, reduces filter down time and extends the life of cartridge filters. The enzyme will also eliminate potential haze problems caused by β -glucans, pentosans and xylans.

Recommended Dosage

A typical **MagiZyme® XL** β -glucanase dosage rate of 50 – 200 g per metric tonne dry grist (0.06% w/w) is recommended as a starting point for the optimisation of enzyme dosage.

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Storage Conditions

MagiZyme® XL storage is recommended chilled in unopened and sealed original containers. Enzyme containers should be stored below 10°C and out of direct sunlight.

MagiZyme® XL will meet the declared activity of being not less than 500 ZBGU/g upon delivery to the Brewery.

If stored correctly the enzyme activity will remain in specification for 12 months.

Packaging

MagiZyme® XL is available in 25 Kg Jerry Cans and 1000 Kg Bulk Bins.

Safety and Enzyme Handling

Inhalation of enzyme dust and mists should be avoided. In case of contact with the skin or eyes, promptly rinse with water for at least 15 minutes.

For detailed handling information please refer to the Material Safety Data Sheet (Statement of Hazardous Nature)



Technical Services

Zymus welcomes the opportunity to work with customers offering technical services with the use of our products in application development and optimisation.

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