



Catalysts

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# Enzyliq ST(X) Plus

## An Efficient Liquefaction Enzyme

ENZYLIQ ST(X) Plus is a starch hydrolysing  $\alpha$ -amylase specially designed for liquefaction in malt industry process in terms of cost, quality and efficiency.

ENZYLIQ STX Plus is an endo- $\alpha$ -amylase enzyme that randomly hydrolyses  $\alpha$ -1, 4-glucosidic bonds to reduce the viscosity of gelatinized starch and liquefy variety of adjuncts used in malt industry.

### BENEFICIARY FUNCTIONS

- Efficient liquefaction in short time span
- No retrograded starch forms due to low temperature operational condition during mashing
- Enables optimal, cost-effective liquefaction in a variety of plant design
- Maximum operational flexibility ensures that your process is optimized
- Stabilized products maintain constant activity during storage
- Higher-activity products reduce ordering, handling, and shipping costs

### PRODUCT APPLICATION

The dosage requirement for liquefaction by ENZYLIQ ST(X) Plus depends upon the process, applied pH, DS, Calcium, temperature, type of raw material and reaction time, which are very important. It has shown superior performance in many different liquefaction systems with a variety of starches from different whole grains, including corn, sorghum, wheat, rice and barley.

### PRODUCT CHARACTERISTICS

Declared enzyme	Endo 1-4 Alpha-Amylase
Declared activity	325 - 350 K-u/g
Production strain	Bacillus licheniformis (Genetically modified strain)
Occurrence	Liquid
Appearance	Amber (Colour vary from batch to batch)
Specific gravity	1.22 - 1.26
pH	$\geq 5.0$
Viscosity (cps)	1 - 25

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## DOSING

Dose 0.4 to 0.6 Kg per metric ton of starch

## OPERATING PARAMETERS

pH	5.0-6.2
Liquification	85°C-90° C till starch nil or as per final product specifications

## PACKAGING

HDPE drums 25 Kg each

## PRODUCT STORAGE

Below 10°C	Minimum shelf life of 6 months
10-25°C	Best used within 3 months from date of delivery

## PRODUCT HANDLING

- Enzymes are proteins. Inhalation of dust or aerosols may induce sensitization and may cause allergic reactions in sensitized individuals. Some enzymes may irritate the skin, eyes and mucous membranes upon prolonged contact. The product may create easily inhaled aerosols if splashed or vigorously stirred.
- Spilled product may dry out and create dust. Spilled material should be flushed away with water. Avoid splashing. Left over material may dry out and create dust.
- Wear suitable protective clothing, gloves and eye/face protection
- Contaminated cloths should be properly washed
- MSDS is supplied with the product. Follow MSDS safety instructions for more details.

ENZYLIQ ST(X) PLUS

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