



ENZYLIQ DS

High-Temperature Starch Liquefaction Enzyme

Industrial starch processing requires efficient liquefaction of gelatinized starch at high temperatures. High slurry viscosity during liquefaction reduces process efficiency, increases energy consumption, and creates operational challenges in jet cookers and heat exchangers. Maintaining consistent dextrinization and achieving the desired Dextrose Equivalent (DE) in minimal time is critical for improving process productivity and downstream conversion efficiency.

ENZYLIQ DS is a next-generation bio-innovative enzyme formulation designed specifically for high-temperature starch liquefaction processes. It significantly reduces the viscosity of gelatinized starch while producing soluble dextrans and oligosaccharides under diverse processing conditions. The enzyme performs efficiently with multiple starch feedstocks such as wheat, corn, and rice, enabling faster liquefaction and improved process stability.

Mode of Action

ENZYLIQ DS contains a highly active alpha-amylase enzyme that hydrolyzes alpha-1,4-glycosidic bonds in starch molecules during liquefaction. This enzymatic action breaks long-chain starch polymers into shorter dextrans and oligosaccharides, rapidly reduces slurry viscosity, and improves heat transfer and mixing efficiency in jet cookers and heat exchangers.

Product Key Benefits

- Improves liquefaction rate to achieve desired DE in minimal time
- Efficient performance at high dry solids (DS) levels
- Lower dosage requirement due to high enzyme activity
- Reduced viscosity improves jet cooker and heat exchanger efficiency
- Supports production of consistent, high-quality dextrin products
- Helps reduce wastewater treatment load
- Contributes to water and energy savings
- Stabilized formulation maintains consistent activity during storage

Product Application

- Starch processing industry
- Grain ethanol production
- Glucose syrup and starch derivative manufacturing

Operational Conditions

- Temperature: **60 – 108 °C**
- pH: **5.4 – 6.4**

Dosage

- 0.4 – 0.5 kg per ton of starch

Product Characteristics

Composition	Alpha-Amylase
Form	Liquid
Appearance	Pale Yellow
Specific Gravity	1.16 – 1.20
pH	5.5 – 6.5

Product Packaging

- 30 kg HDPE drums

Product Shelf Life

- Minimum **12 months** when stored below **20°C**.

Product Handling

- Inhalation of enzyme aerosols may cause sensitization or allergic reactions in susceptible individuals.
- Avoid inhalation of vapors, mist, or aerosols during handling.
- Prolonged contact may irritate skin, eyes, and mucous membranes.
- Spilled material should be flushed away with water.
- Use appropriate PPE including gloves, protective clothing, and eye protection.
- Refer to the MSDS for detailed safety instructions.



ISO 9001:2015 Certified | FSC 22000 Certified

CORPORATE OFFICE:

240, Functional Industrial Estate, Patparganj,
Delhi - 110092, India

Phone: +91 11 49867313 / 49867314

Email: info@thecatalystsgroup.com

Web: www.thecatalystsgroup.com

Certifications:

