



Enzymes for BIOETHANOL & POTABLE ALCOHOL



Bioethanol & Potable Alcohol ENZYMES

Product	Enzyme	Dosage
Grainzyme FL	Xylanase	200-350 mL/ton related grain materials
Grainzyme NL	Cellulase	20-100 mL/ ton related grain materials
SQzyme HSAL	Alpha-amylase	400-800 mL/ ton related grain materials
LiqueStar	Alpha-amylase	100-250 mL/ ton related grain materials
LiqueStar 2.0	Alpha-amylase	100-250 mL/ ton related grain materials
LiqueStar EX	Alpha-amylase & Phytase	100-250 mL/ton related grain materials
LiqueStar X	Alpha-amylase	80-200 mL/ ton related grain materials
SQzyme BAL	Alpha-amylase	100-300 mL/ ton related grain materials
SQzyme AGL	Glucoamylase	500-800 mL/ ton related grain materials
Fermentase L	Glucoamylase	200-350 mL/ ton related grain materials
Fermentase HX	Glucoamylase	250-430 mL/ ton related grain materials
Fermentase HX Pro	Glucoamylase	230-400 mL/ ton related grain materials
Fermentase THX	Glucoamylase & Trehalase	250-430 mL/ton related grain materials
SQzyme FAL	Fungal amylase	200-500 mL/ ton related grain materials
SQzyme FYL	Phytase	5-30 mL/ ton related grain materials
Fermentase PSL	Acid protease	10-25 mL/ ton related grain materials

Function and Description

Process	Product	Advantages and Benefits
Mash Viscosity Reduction	Grainzyme FL Grainzyme NL	Highly effective enzyme solutions for reducing mash viscosity before liquefaction, specifically designed for wheat, triticale, and rye
Liquefaction	SQzyme HSAL	An excellent heat-stable alpha-amylase for liquefaction
	SQzyme BAL	A highly efficient bacterial amylase for liquefaction at medium temperatures
	LiqueStar	A highly efficient alpha-amylase offering superior viscosity reduction with high concentration and low dosage
	LiqueStar 2.0	A highly efficient alpha-amylase, superior viscosity reduction with high concentration and low dosage, higher temperature tolerance, lower pH tolerance
	LiqueStar EX	A superior alpha-amylase, co-formulated with thermostable phytase, enhance liquefaction and fermentation efficiency, improved yeast nutrients
	LiqueStar X	A highly efficient alpha-amylase for corn flour liquefaction with wider temperature and pH range
Saccharification & Fermentation	SQzyme AGL	A classic glucoamylase with great performance
	Fermentase L	A concentration and efficient glucoamylase with good amylase activities
	Fermentase HX	A concentrated glucoamylase with enhanced amylase side activities, offering superior starch utilization and reduced residuals
	Fermentase HX Pro	An enhanced, well-balanced glucoamylase designed for optimal starch utilization and increased ethanol yield
	Fermentase THX	Concentrated glucoamylase with amylase and trehalase side activities, targeting to achieve ideal fermentation level
	SQzyme FAL	A classic fungal amylase for fermentation enhancement and lower residuals
	Fermentase PSL	A concentrated acid protease for higher yeast nutrition and corn oil yield
	SQzyme FYL	A highly effective phytase that enhances yeast nutrition and improves heat exchanger efficiency in long-term operations

SUNTAQ INTERNATIONAL LIMITED

1301-1304, Building 1,
233 Kezhu Road, Huangpu Dist.,
Guangzhou, 510700, China

Tel: +86 20 6636 5600
Email: info@suntaqzymes.com
Web: www.suntaqzymes.com