

Enzymes for BREWING

Ver. 26.0

Brewing ENZYMES

Product	Enzyme	Dosage
Brewzym HSAL	Heat Stable Alpha-amylase	400-700 mL/T grain material
LiqueStar 220	Heat Stable Alpha-amylase	150-300 mL/T grain material
SQzyme BAL	Bacterial Alpha-amylase	100-300 mL/T grain material
SQzyme FAL	Fungal Alpha-amylase	200-500 mL/T grain material
Debranzyme X	Pullulanase	50-300 mL/T grain material
Brewzym AGL	Glucoamylase	500-800 mL/T grain material
Brewzym GXP	Compound Enzymes	50-400g/T Grist
Brewzym BGL	Beta-glucanase	50-400mL /T Grist
Brewzym NPS	Neutral Protease	50-250mL /T Grist
SQzyme PSL	Acid Protease	10-25mL /T Grist
Brewzym PRO	Proline Protease	2-3.5g/hl Wort
Brewzym ALDC	Acetolactate Decarboxylase	10-15 mL/T of cold wort; 4-10 mL/T of beer

Performance of
Brewing Enzyme Preparation

Used Process	Product	Advantages and Benefits
Cereal Cooking	**Brewzym HSAL**	An excellent heat stable alpha-amylase from *Bacillus licheniformis*
	LiqueStar 220	Highly efficient heat stable alpha-amylase, superior viscosity reduction and outstanding liquefying performance
Saccharification Mash	**Brewzym AGL**	Classical glucoamylase with great performance
	Debranzyme X	Pullulanase to improve the level of fermentable sugar and to reach higher attenuation limits
	SQzyme BAL	Concentrated bacterial alpha-amylase from *Bacillus subtilis* with great performance liquefying at medium temperature
Fermentation Enhancement	**Brewzym NPS**	Neutral Protease for producing sufficient peptides and amino-acids in the wort to get a proper fermentation
	SQzyme PSL	Acid protease that can work properly at low pH to balance the amino acid profile during fermentation
	SQzyme FAL	Fungal amylase to improve the level of fermentable sugar and to reach higher attenuation limits
	Brewzym ALDC	Alpha acetolactate decarboxylase, which can effectively catalyze the decarboxylation of acetolactate to generate acetoin and control the accumulation of diacetyl, so as to speed up the brewing process and regulating the flavor of the products
	Brewzym PRO	A proline-specific endopeptidase, which can specifically hydrolyze proteins and small proteins that could lead to haziness in the brewing, so as to improve the beer stabilization process
Filtration	**Brewzym GXP** **Brewzym BGL**	Highly efficient beta-glucanase with rich side activities of xylanase and cellulase, to reduce the viscosity of wort, speed up filtration, solve potential beta glucans caused haze problems and improve the brightness of beer

All enzymes listed are food grade, Kosher and Halal certified.

Suntaq enzymes are produced according to HACCP in a process controlled by FSSC 22000 quality system. It complies with JECFA and FCC recommended requirements.

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