*All CarboUA products meet FDA/FCC requirements and all food grade Halal and Kosher approved.

Kosher Los Angeles

المجلس الإسلامي الأمريكي للغذاء و التغذية
THE ISLAMIC FOOD AND NUTRITION COUNCIL OF AMERICA
IFANCA HALAL PRODUCT CERTIFICATE شهادة حلال

High Temperature Alpha Amylase

- High temperature starch hydrolyzing alpha amylase for sugar application.
- Obtained from controlled fermentation of genetically modified strain of Bacillus Licheniformis.
- Designed and developed for hydrolysis of the interior alpha 1-4-glucosidic bond of starch and its degradation products.

Functionality:

- ✓ Improves process parameters of sugar manufacturing processes.
- ✓ Hydrolysis starch and converts the same to dextrin and glucose.
- ✓ Prolonged use leads to system improvement across manufacturing.
- ✓ Improves clarification.
- ✓ Reduces overall viscosity and ensures improved pan boiling.
- ✓ Improves ICUMSA color.
- ✓ Reduction of sugar losses due to enhanced process efficiency.

Feasibility study:

Type of Enzyme	Starch Content (ppm)		% Starch Removal
	Raw Sugar	After Reaction	
Supplier 1	168.8	77.6	54 %
CSI AA-HT 1		61.2	64 %
CSI AA- HT 2		62.5	63 %
CSI AA-HT 3		61.8	63 %
CSI AA-HT 4		63.2	63 %

Application:

Dosed at various points in the process depending on the specific needs. Typical dosage 15 – 20 ppm depending upon starch on raw sugar.

Process Diagram: