CARBO SOLUTIONS INTERNATIONAL
HIGH TECH SUGAR SOLUTIONS

*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

HPD & HPA Decolorization: Phosphatation Sugar Refinery

- **HPD (High Performance Decolorant) and HPA (High Performance Adsorbent)** are patented products engineered and designed for superior decolorization as an alternative of IER and GAC in phosphatation sugar refinery.

Functionality:

- HPD improved the melt liquor by 25-35 %.
- HPA improves liquor's quality, filterability and impurities removal by 70-80%.
- Reduces chemical consumption by 50%.
- Better filtration due to better flocculation.
- Removal of beverage floc.
- Energy savings.
- No liquid effluent discharges.
- Low centrifugal washing water consumption.
- Operates at higher brix.
- Increases over-all factory yield.

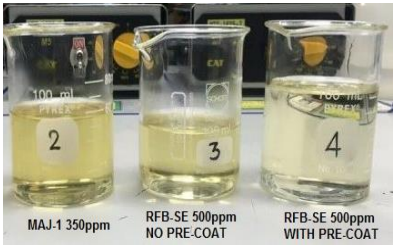
Feasibility study:

Phosphatation Refinery, 1000 MTD

Melt Liquor (IU)	HPD (350 ppm)	HPD (1000 ppm)	Color Removal
833	586	158	81 %
758	495	126	83 %
806	435	140	83 %

Application:

1st Step: HPD added to the melt liquor.



2nd Step: HPA added to the clear liquor (after multimedia filters)

Process Diagram: