



HPA: Carbonatation Enhancement in Sugar Refinery

HPA (High Performance Adsorbent) is a patented activated adsorbent designed especially for superior de-colorization and filtration associated with **carbonatation sugar refineries**.

Functionality:

- Absorbs colorants/impurities from raw sugar.
- Reduces polysaccharide concentration such as dextran and starch content in VHP sugar.
- Operates at higher brix.
- Removes acid beverage floc (ABF) in liquor.
- Improves filtration cycle.
- Lengthen the cycle time of the IER.
- Energy savings.
- Reduces centrifugal washing time.
- Increases the overall yield of the refinery.

Projected Benefits:

Parameter	Effect
Extra Color Removal	(+) 30 – 50 %
Potential Floc Reduction (Sugar)	(-) 50 – 70 %
Brix Increase	(+) 2 – 5 %
Increase Throughput	(+) 5 – 20 %
Increase in Recovery	(+) 0.5 – 6.0 %

Data Report:

Carbonatation Refinery

	Without HPA	With HPA	% Improve
Melt Sugar, MTD	750	906	21%
Total RSO, MTD	713	868	22%
Total Masecuite Strike	25	30	20%
Refined Sugar, IU	33	32	
Sweet Water Recycled, IU	1741	1546	11%
% Capacity Utilization	79	96	22%

Application: HPA is added directly to the carbonated liquor tank as a dry powder or by 15 - 25% water slurry.

Process Diagram:

