



HPD: Low Cost Carbonatation Enhancement in Sugar Refinery

MAJ and S-Type are liquid high-performance decolorant (HPD) for carbonatation application. It is a water soluble, and has a high molecular size which prevents occlusion inside the sugar crystal. Easy application by small dosing pump.

Functionality:

- Strong cationic radicals and activated-adsorbent that precipitate color bodies.
- Impurities adhere to HPD and easily scavenged by the mud.
- Improves carbonatation efficiency by >30 %.
- Removes turbidity.
- Decreases pol in the mud by 50 %.
- Reduces volume of centrifugal wash water.
- Reduces steam consumption by 15%.
- Increases the overall yield of the refinery.

Projected Benefits:

Parameter	Effect
Color Removal	(+) 20 - 40 %
Centrifugal Washing Time Reduction	(-) 10 - 30 %
Production Increase	(+) 0.5 - 3 %

Data Reports:

Carbonatation Refinery, 1000 MTD

	Normal	With HPD	% Improve
Dosage, ppm	-	300	-
Clear Liquor Color, IU	1184	907	40 %
Fine Liquor Color, IU	183	122	33 %
Turbidity	24	9	63 %
pH	8.43	8.13	-
Sweet Water Color, IU	1039	884	15 %
Pol in Mud	0.75	0.37	50 %

Carbonated Liquor Color (IU)	Clear Liquor Color (IU) with HPD	% Color Removal
505	284	44 %
363	237	35 %
646	247	62 %

Application:

HPD is added to the carbonated liquor tank by small dosing pump.



Process Diagram:

