

Phenol Sulphonates Are The Accelerators In Delignification Process.

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ABSTRACT

Casurf is a non-ionic bio-degradable surfactant, basically it is a sulphonated product of cardanol used as penetrating aid in pulping. It is the desire of every one of us here to maximize efficiencies and productivity of whatever system we operate today. However our effort to fine tune existing operation or conservation of resources can only make a marginal impact on overall performance. In MHW (Mixed hard Wood) pulping process, digester additives on a regular basis improved the hard wood pulp productivity. Active alkali reduction, knots generation and cost reduction were noticed in addition to absorbing the cost of the additive. Sulphonated product of cardanol (penta-decadienyl phenol) i.e. Casurfact as a digester aid, it improves the liquor penetration and diffusion into the chips by their surface active property has been far more successful with regards to improving the pulping efficiency. The hydrophilic-lipophilic water soluble additive improves the pulping. Their unique wetting mechanism of the chips alkali penetration into the chips is the key to efficient pulping.

The work presented in this paper was intended to identify the potential penetrating power of casurf and various surfactants both individually and in combination in Kraft pulping. The main objective of this paper is to judge the effectiveness of casurf in R & D Lab by various control cooks and with the addition of casurf at constant cooking conditions using autoclave bomb digester. The results that followed indicated Kappa number reduction by 20 to 18% (2 units), pulping rejects reduced by 1.5% to 0.9%, Screen yield increased by 4.4% to 5.0% over the control cook. The reduction in AA, increase in yield favors the delignification in kraft pulping, lower in total solids higher organic solids in black liquor and significant changes in RAA, viscosity and hemi-cellulose show favorableness in the chemical recovery process.