

Understanding of Pitch Deposit Phenomenon in Virgin Mills

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In pulp and paper industry, closing of water loop to reduce fresh water consumption has become a world wide trend today. The closure of white water systems leads to build up of various organic and inorganic components causing deposition along the papermaking process, which appear to adversely affect the runnability on the paper machine and quality of the end product. The problem has been found to be more serious in the virgin mills using wood as raw materials containing more resinous materials. Different wood components are released from the fibres during pulping and bleaching into the process water of the paper mill. These components are present in process water in the form of dissolved and colloidal substances (DCS), which are mainly hemicelluloses, lipophilic wood extractives, lignans, pectins and lignins etc. Dissolved and colloidal substances can be carried over to the paper machine, where they can interfere with papermaking process.

The present paper highlights the work carried out by CPPRI at CTP, France on **Understanding the Problem of Pitch Deposit Phenomenon in Virgin Wood based Mills** in India. The study is concluded in two parts. Part I highlights the behavior of native colloids on pitch deposit formation and is presented in this paper. The part II covers modification colloidal pitch during pulping and bleaching stages, which will be presented in one of the forthcoming seminars of IPPTA.