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Perguntas / Questions

Pergunta nº: 1670/Question nº: 1670

Título:/Title: A question about pulp yield in kraft pulping of eucalyptus

Por: / by: Bill Fuller

E-mail: Consult4FRM@aol.com

Questão: /Question:

Greetings, my friend!!! It has been a very long time since we have seen each other. I miss the interaction we have had at TAPPI meetings. I am still consulting and will continue until my mind and body can no longer work on chips!
A company is selling Tazmania *Eucalyptus* chips to a client in Japan. The specifications that the customer uses measures yield at 27 kappa (very high) and the seller does pulping tests on each shipload at 18 kappa. Of course, the yield is different at each kappa number and I am trying to see if they are really saying the same thing in the

relationship of increasing yield with higher kappa numbers. I am looking for this yield/kappa relationship for pure or mixed *Eucalyptus*. A typical shipment contains *E. globulus, nitens, delicatensis, and obliqua*.
I am not asking you to generate the data comparisons of species and yield at various kappa numbers, but it you can point me to some good literature reports, that would be helpful.

Best regards.....Bill

William S. Fuller

Resposta por Celso Foelkel: / Answer by Celso Foelkel:

Dear Bill, great hearing from you and to know you are still very active on kraft pulping and wood chips.
The gain in pulp yield occurs, but it is relative moderate, the total or gross yield may improve 2 to 3%, but reject content also increases.

Kappa 27 is too high, and it may be a nonsense to manufacture eucalyptus unbleached pulp to sell. To bleach it, the active chlorine demand will be prohibitive.
Even in case you are to add a oxygen delignification after the kraft pulping stage, kappa number 27 is high, and oxygen and caustic soda consumptions are also to be high.
I'm not sure whether or not to cook to so high kappa may bring economics to the overall process.

However, this seems to be a typical situation where the bottlenecks may be the reasons for these demands – it could be a limitation in capacity in the lime kiln, or in the recovery boiler.
I guess you need to visit then to understand the reasons.

Have a look to the following article figures (Figure 9 is the key one ----- Rendimento = Total Yield)

http://www.eucalyptus.com.br/icep03/170Pimenta.text.pdf
and
http://www.eucalyptus.com.br/icep03/171Pimenta.ppt.pdf

Best regards - Celso
