

ENVIRONMENTAL FOOTPRINT COMPARISON TOOL

A tool for understanding environmental decisions related to the pulp and paper industry



CHLORINATED
COMPOUNDS

EFFECTS OF NON-WOOD FIBER USE ON CHLORINATED COMPOUNDS

Bleaching of Non-Wood Fiber

The Paper Task Force Report cites experience where non-wood fiber has been bleached to high brightness (90+ ISO) with totally chlorine free (TCF) bleaching sequences following alcohol-based pulping. In another example, pulped agricultural residue bleached in a TCF processes was blended in near equal quantities with elemental chlorine free (ECF) bleached old corrugated containers for the production of 80 brightness uncoated printing and writing paper (Paper Task Force 1996).

In the United States, paper produced commercially with 100% TCF kenaf pulp has had a typical brightness of 72 ISO and would not accommodate expectations for bright white paper (Rymsza 1997). However, there may be an option to incorporate non-wood fiber pulp with other wood fiber sources, including pre- and post-consumer wastepaper, brightened by process chlorine free (PCF) and elemental chlorine free (ECF) bleaching, to achieve a higher final brightness product.

References

- Paper Task Force. 1996. *Non-wood plant fibers as alternative fiber sources for papermaking*. White Paper 13. http://c.environmentalpaper.org/documents/1634_WP13.pdf
- Rymsza, T. 1997. Commercial paper making with kenaf. Presented at the American Chemical Society Fifth Chemical Congress of North America. http://www.visionpaper.com/PDF_speeches_papers/Amsterdam2.pdf