ENVIRONMENTAL FOOTPRINT COMPARISON TOOL

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



EFFECTS OF RECYCLED FIBER USE ON WATER USE

Tissue Sector

A discussion of the effects of recycled fiber on tissue properties is beyond the scope of this Tool. The reader should consult with tissue manufacturers to better understand the constraints on fiber furnish that may be associated with the manufacture of products with specific properties.

Where tissue is manufactured at mills with virgin pulping, the most common virgin pulps produced are bleached kraft (sulfate) and bleached sulfite, although few bleached sulfite mills remain. Therefore, the co-benefits and trade-offs examined in this section compare recycled tissue manufacturing with tissue manufactured from virgin bleached kraft pulp.

The available literature suggests that water use and effluent flows from deinked tissue mills will be significantly lower than those from bleach kraft mills manufacturing tissue. This is confirmed by statistical analysis of NCASI data.

Table R5.

Mill Description	Effluent Flow (m³/tonne)	Reference
Bleached kraft (sulfate) pulp production plus tissue manufacture	50 to 90 (sum of pulp and paper values)	Springer 2000 Gottsching and Pakarinen 2000
Deinked pulp production plus tissue manufacture	30 to 60 (sum of pulp and paper values)	
Recycled newsprint mills	8 to 10	
Bleached kraft (sulfate) pulp mills using Best Available Techniques	30-50	EC BREF 2001
Deinked tissue mill using Best Available Techniques	8-25	

References

- European Commission BAT Reference (BREF). 2001. Integrated Pollution Prevention and Control (IPPC) reference document on best available techniques in the pulp and paper industry. Seville, Spain: European Commission Joint Research Centre. http://eippcb.jrc.es/reference/pp.html
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