

November 2009

European Tissue Symposium **Position on Sustainable use of New and Recovered Fibre Types**

Introduction

ETS is the European Tissue Paper Industry Association. The members of ETS represent the majority of tissue paper producers throughout Europe and around 90% of the total European tissue production.

ETS was founded in 1971 and is based in Brussels.

Context

Tissue paper products have become part of the daily life of consumers. Their contribution to hygiene is unquestionable and the use of bathroom tissue is now ubiquitous. Paper towels also improve hand hygiene

<http://www.wmin.ac.uk/~redwayk/research/WADsummary98.htm> in professional and public environments such as hotels, restaurants, hospitals and educational establishments. The important contribution that tissue makes to hygiene was recently recognized by the UK Department of Health in their 'Catch, Bin it, Kill it!' campaign

http://www.dh.gov.uk/dr_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_080836.pdf

designed to help reduce the spread of cold, flu and other viruses. The public was advised to cover their noses and mouths with a tissue during coughs and sneezes, to be followed by disposal of the tissue as soon as possible and then washing the hands. It is generally recognized that disposable tissue products help to reduce the risk of infection by microorganisms in high hygiene environments.

Sustainability and the Tissue Industry

As manufacturers of disposable products, the tissue sector is committed to promoting sustainable development through its business activities and this includes the use of different fibre raw materials. The tissue industry makes a range of different products for different hygiene applications. The decision of a manufacturer to use recovered or new fibres depends upon a number of factors. These include amongst others availability, end use, technology, and customer demands.

Recovered fibres tend to be used more in B2B grades such as hand towels and industrial wipers while new fibres are more prevalent in consumer grades such as facial tissue kitchen towels and medical applications.

It is a rather common belief that the use of recovered fibres for tissue paper production causes less environmental impacts than that of new fibres. Recent Life Cycle Assessment (LCA¹) studies made for one of ETS' member companies for their own products and processes

¹ Life Cycle Assessment (LCA) is an environmental management tool increasingly used to understand and compare how a product or service is provided, "from cradle to grave". The technique examines every stage of the Life Cycle,

<http://www.europeantissue.com/wp-content/uploads/081126-KC-Life-Cycle-Assessment-of-Tissue-products-Final-report-Dec-2007.pdf>

however show that neither fibre type can be considered environmentally preferable. In this study both new fibre and recovered fibre offer environmental benefits and shortcomings. In addition, during 2008, ETS decided to calculate the carbon footprints of European average toilet tissue. Expert consultants operating to ISO 14025 standards for life cycle analysis were commissioned to carry out the work. The results showed that a limited range of numbers could be used to represent the carbon footprint of all toilet tissue made from new and recovered fibres produced in Europe². This study therefore also confirmed that neither fibre type can be considered environmentally preferable when considering carbon emissions.

Total environmental impacts vary case by case, depending on for example the location of the tissue paper mill, availability of fibres close to the mill, energy options and waste utilization possibilities. There are opportunities to minimise environmental impacts when using each fibre type.

When using recovered fibres, it is beneficial to:

- Source fibres from integrated deinking operations to eliminate the need for thermal drying of fibre or long distance transport of wet pulp,
- Manage deinked sludge in order to maximise beneficial applications and minimise waste burden on society; and
- Select the recovered paper depending on the end-product requirements and that also allows the most efficient recycling process.

When using new fibres, it is beneficial to:

- Manage the raw material sources to maintain legal, sustainable forestry practices by implementing processes such as forest certification systems and chain of custody standards³; and
- Consider opportunities to introduce new and more renewable energy sources and increase the use of biomass fuels to reduce emissions of carbon dioxide.

from raw materials acquisition, through manufacture, distribution, use, possible re-use/recycling and then final disposal. In addition, every operation or unit process within a stage is included. For each operation within a stage, the inputs (raw materials, resources and energy) and outputs (emissions to air, water and solid waste) are calculated. These inputs and outputs are then aggregated over the Life Cycle. The environmental issues associated with these inputs and outputs are then evaluated in the Life Cycle Impact Assessment. This provides a general overview of the product system and other assessment tools can then be combined with this information to evaluate the product or service over the entire Life Cycle. Conducting LCAs for alternative products or services thus allows improved understanding and for comparisons to be made. An LCA will not necessarily guarantee that one can choose which option is "environmentally superior" or better to another, but it will allow the trade-offs associated with each option to be assessed.

² Carbon footprint of toilet tissue paper: Comparison of toilet tissue using 100% fresh fiber pulp and 100% recovered fiber pulp. Authors: Catharina Hohenthal & Katri Behm March 2009 – see link

<http://www.europeantissue.com/wp-content/uploads/091126-Carbonfootprint-of-toilet-tissue12.3.2009.pdf>

³ The chain-of-custody is the path which products take from the forest to the consumer, including all manufacturing, transformation and distribution links. Chain-of-custody certification verifies that products from certified forests are not mixed with products from uncertified forests at any point in the supply chain. Chain-of-custody certification assures buyers and customers that the certified goods they buy are genuinely the products of a well-managed forest. A secure chain-of-custody requires that certified products are identified, segregated and accompanied by appropriate documentation at all stages.

When using either fibre type, it is beneficial to:

- Improve energy efficiency in tissue manufacturing;
- Examine opportunities for changing to alternative, non fossil based sources, of energy for tissue manufacturing operations
- Deliver products that maximise functionality and minimize consumption; and
- Investigate opportunities for alternative product disposal systems that minimize the environmental impact of used products.

Conclusion

Both new and recovered fibres have been important raw materials for the tissue industry for many decades and both materials are used responsibly.

When using new fibres the tissue sector is committed to use cellulose wood pulps which are derived from sustainably managed forests. These forests ensure the long term health of the forest, capture carbon dioxide and mitigate climate change.

- In the case of recovered papers used as raw materials, ETS is a member of the European Recovered Paper Council which is committed to increase the recovery of paper within Europe. The European Recovered Paper Council (ERPC) is committed to meet a voluntary recycling rate target of 66% in the European Union plus Switzerland and Norway by 2010, which is a higher rate than in any other region in the world.
- All ETS members are committed to reduce the environmental impacts of their operations, regardless of whether they utilise new or recovered fibres.

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