



COMPARATIVE ENVIRONMENTAL IMPACT ASSESSMENT OF CORRUGATED BOARD PRODUCTION

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Abstract

Environmental issues are a key objective for European paper industry. Among the initiatives addressed to minimise the environmental impacts, this industry has an important focus on the product itself. Paper industry is continuously improving environmental profile of their products by using high percentages of recycled fibres as substitute of virgin fibres. The use of recycled cellulose fibres has taken a considerable extent during last decade and recovered paper became an indispensable secondary raw material for the paper manufacturing, accounting for 50% of the total fibre raw material in European countries. Despite of these assets of paper and board recycling, there are few specific studies that analyse the environmental behaviour of the paper products considering the use virgin and/or recycled fibres. The aim of this work is to assess and compare the environmental impact of corrugated board production by using different component papers, based on virgin fibers (kraftliner) and recycled fibres (testliner and wellenstoff). Life Cycle Assessment (LCA) methodology was applied in order to identify, quantify and evaluate the environmental impacts. LCA software GaBi 4 was used to support this analysis.

Key words: component papers, corrugated board, environmental impact, GaBi 4, LCA

Received: May, 2010; Revised final: July, 2010; Accepted: September, 2010

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