

# SUSTAINABILITY REVIEW 2010



Respecting the Future

## PANKABOARD OY

Pankaboard is the world leader in high thickness folding boxboards and specialty boards. Typical end-uses are packaging applications requiring high stiffness and excellent printability. Pankaboard is also a significant supplier of woodpulp boards where bulk properties are brought to a maximum. Woodpulp boards are widely used in different laminates to achieve the required thickness or stiffness with less material. Solid bleached boards for the food and graphical industries are also produced.

The Pankaboard Mill in Lieksa, Finland has two board machines and employs approximately 160 people. Board production capacity is 100 000 tonnes per annum. Board Machine 2 produces coated boards. Board Machine 3 makes uncoated boards using a special drying technology (Condebelt), which provides good smoothness and printability with minimum bulk loss.



Spruce groundwood pulp is produced at the mill. Bleached chemical pulp is purchased from domestic sources. Steam is generated from bio fuels, with oil only required as back-up.

Pankaboard has certified management system according to quality standard ISO 9001, environmental standard ISO 14001, chain of custody of wood raw material (PEFC) and food safety standard ISO 22000 according to HACCP-requirements. One of the basic requirements of all these systems is continuous improvement of processes.

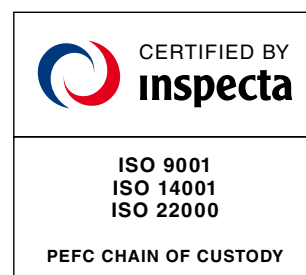
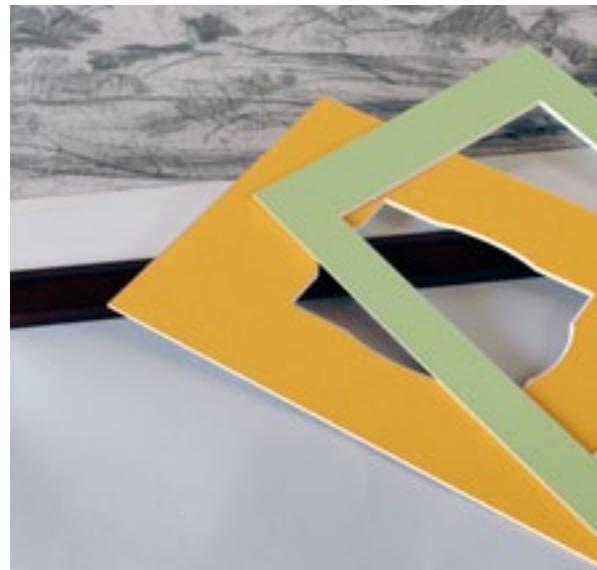
## SUSTAINABILITY POLICY

The management team has formulated the sustainability policy. Key elements are customer satisfaction, food safety, occupational safety, standard operational procedures and raw materials from traceable sources. All work is carried out in an environmentally sound manner.

## MAIN OBJECTIVES FOR 2009-2011

The main objectives for years 2009 – 2011 have been set by management in line with the established policy. These main targets are

- decreasing the amount of process waste
- avoiding emergency emissions
- decreasing the nominal energy consumption
- finding reuse for boiler ash



## CLIMATE CHANGE

Pankaboard production is based on renewable raw materials and fuels. The mill uses locally sourced wood for pulp and energy production.

Annual wood consumption is 100 000 m<sup>3</sup> spruce round wood. Wood origin is fully traceable and certified.

Thermal energy is produced by burning bio fuels. The main part of bio fuel is bark from the pulp wood. The mill is party to the Finnish industry's Energy Efficiency Agreement, which mandates regular monitoring and continuous improvement of energy efficiency. The nominal energy consumption is decreased more than 10% in last 5 years.

Fossil CO<sub>2</sub> emissions from production are estimated at 53 kg/t board. This corresponds to about 1/30 of the total CO<sub>2</sub> that has been absorbed by growing trees and is now bound in the board as carbon.

## ENVIRONMENTAL IMPACTS

Process control and emission control programs are reviewed and supervised by government authorities. Control is ongoing and documented.

Environmental quality has improved remarkable in the last 10 years due to improved process and cleaning systems as well as higher quality raw materials. Environmental quality is measured and reported continuously.

The mill has the required environmental permit as well as a permit from the safety authorities. Permit limits are set and continuously monitored by the authorities.

Mill production and transport activity always cause some adverse noise effects in the vicinity. Noise levels are controlled and noise protection and reduction techniques are used. More than 50% of transportation is done by rail.



## EMISSIONS

There are some emissions into the air from the steam plant. All air emissions from the steam plant are on the level dictated by best available technology (BAT) thanks to modern boiler technology and efficient cleaning equipment.

Effluent emissions are treated in a three step cleaning system: bioreactor, chemical treatment and final aeration. Emissions to the river Lieksanjoki conform to best available technology (BAT) levels.

Less than 10% of solid waste is going to landfill. The main part is recycled or reused.

Chemicals are used in the mill in controlled ways and no emissions to the environment occur.

## SOCIAL RESPONSIBILITY

Pankaboard employs about 160 people. Throughout its history, the Pankakoski mill has been a very significant local employer. Logging, transportation and other services needed by the mill gives have a strong effect on the town's economy. The indirect employment effect is about 1000 people.

All employees are highly educated and employed in accordance with Finnish legislation and labor contracts.

A safe work environment is an essential part of the motivation behind high quality products. Safety rules are tight and protection equipment used to keep processes running smoothly without accidents or loss of quality.

Occupational health and safety procedures are widely implemented in the company.

## SAFETY OF PRODUCTS

Pankaboard products are clean and hygienic. All the board grades produced by Pankaboard are manufactured solely from virgin fibers and additives.

All the raw materials used in board production are approved for food contact and possible health risks have been considered in those approvals.

There is continuous process and product development work to minimize raw material consumption and improve product safety.

Board products with very high bulk can potentially lead to savings in both raw material and converting costs at Pankaboard's customers.



## CLEAN AND STRONG

In addition to pure and clean raw materials the Condebelt drying technology on BM3 makes the products microbiologically very pure thanks to the high pressure and temperature used in the drying process.

Condebelt gives unique strength properties to the board without using an excess amount of chemicals.



## REUSABILITY

Depending on the board grade, 90% or more of the composition of the board is organic fiber material. Only 10% or less is inorganic material; mainly minerals. Based on the composition, boards are classified as biodegradable.

Pankaboard's products are fully recyclable and can be used as raw material in manufacturing process of board and paper. Pankaboard's products can also be disposed of through incineration.

Pankaboard fulfills all the obligations related to recycling and recovery of packaging stipulated by the authorities.

### More information

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