Metsä

Let’s lighten the carbon footprint of your packaging

Discover what separates paperboard engineered for the future from conventional alternatives.

MORE THAN YOUR AVERAGE PAPERBOARD

* The technical background LCA report and verification statement by IVL Swedish Environmental Research Institute publicly available on **our website.**

How pharma companies can reduce the carbon footprint of their value chain

Scope 3 emissions, which include indirect emissions in the upstream and downstream activities of an organisation, are a hot topic in the pharma industry as companies continue to look for ways to reduce their carbon footprint. With the right material choices and reliable accurate data, the carbon footprint of pharmaceutical packaging can be significantly reduced. We at Metsä Board can provide both expert support and lightweight paperboard products to support pharma companies in their carbon footprint reduction efforts.

Metsä Board's folding boxboard (FBB) vs. SBB and WLC

50%
reduction in carbon footprint when switching from a solid bleached board (SBB)*

63%
reduction in carbon footprint when switching from white lined chipboard (WLC)*

NO COMPROMISE
on protective properties

Read on and explore the innovative engineering and design practices that make these figures possible.

Metsä Board's fresh fibre folding boxboard (FBB) combines sustainably sourced fresh wood fibres with resource efficient manufacturing processes and measurably low carbon impact. Packaging made from Metsä Board's specially engineered paperboard is not only lighter than conventional paperboard, but it also retains all the strength and functional properties of heavier grades. It requires less resources to produce, which has an impact on carbon footprint.

Ready to request a sample?

Reach out to us at Metsä Board. We're eager to assist and excited to be part of your sustainability journey.

Contact us

How to achieve carbon footprint reduction

Measurably lower carbon footprint

Two major factors affect the carbon footprint of paperboard packaging: weight and the energy used in production. Fresh fibre paperboards are stronger than boards made from recycled fibre, for example. When less fibres are needed to manufacture packaging of the same strength, this results in a lower weight and a lower carbon footprint.

Fossil free energy reduces the environmental impact of fresh fibre paperboard and enables a lower footprint. Big part of the energy we use is already based on renewable energy produced by fractions generated in our processes.

At Metsä Board, 90% of our total energy consumption is fossil free (2023), with an aim to reach 100% by the end of 2030.

Two major factors influence the CO_2 footprint of paperboard packaging

1. Fossil or non-fossil-based energy

Nordic fresh fibre paperboard production primarily uses renewable and fossil-free energy. In contrast, many other regions of the world still predominantly rely on fossil-based energy sources.

2. Efficient material use and lightweighting

- Using less material to produce the required type of packaging.
- Reduced weight to be transported throughout the supply chain, resulting in lower transportation emissions.
- Less waste generated after the product's use.

Good to know

At Metsä, we source fresh wood fibres from sustainably managed Northern European forests traceable back to it origins. These fibres form the basis of our lightweight folding boxboard and are both the beginning and enabler of a circular economy.

Already 91% of the wood fibres are certified.

Light. Strong. Functional.

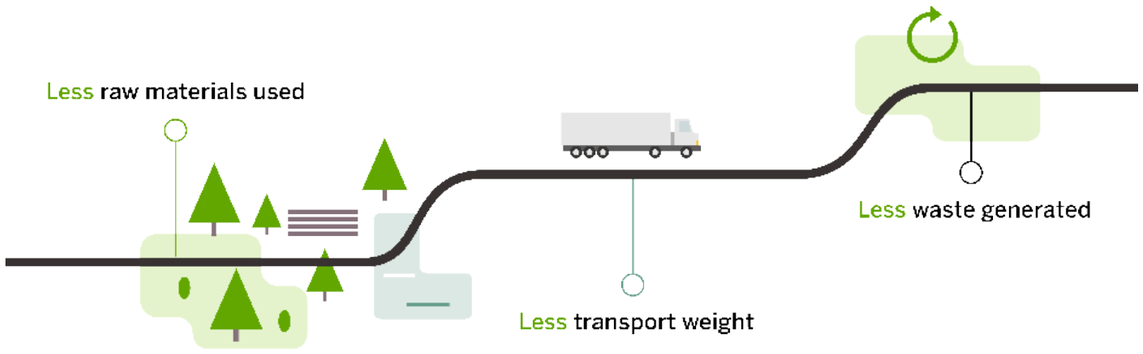
We use these fibres to produce our own specially engineered pulps with properties tailored for high performance and resource-efficient paperboards.

Our boards use a three-layer structure that enables you to use significantly less raw material for the same amount of packaging without compromising protective properties like stiffness and strength.

High yield pulp forms the middle layer of our board and is the key to enabling lightweighting. Two layers of chemical pulp complete the structure, adding more strength, brightness and printability.

Contributing to your sustainability targets

As the weight of paperboard decreases, so does its carbon footprint. Lightweighting enables resource efficiency as well as emission reduction throughout the value chain. The fact that lower weights are being transported also carries environmental benefits, as does the reduction in waste waiting to be recycled at the end of the packaging value chain.



Consumer safety is non-negotiable

All of our paperboards are made of renewable, recyclable fresh fibre that do not alter the odour or taint properties of the products packaged in them. This makes Metsä Board's folding boxboards (FBB) a safe choice for fibre-based pharma and food packaging and other sensitive packaging end uses.

As part of Metsä Group, our operations cover the entire production chain, from the forest to the pulp and paperboard mill. This ensures that we know exactly what our paperboard is made from.

All wood raw material comes from certified or controlled, traceable and third party-verified origins located in sustainably managed Northern European forests. The use of fresh fibres and the unique chain from forest to product guarantees that no unknown chemicals end up in our paperboards.

Good to know

Carbon footprint assessments conducted by Metsä Board follow procedural and methodological requirements of ISO 14025 and are consistent with ISO 14040 and 14044 standards. The selected system boundary for the study was cradle-to-gate + end-of-life and selected climate change impact methodology was EF3.1 Climate Change - total. Climate change impacts for competing materials utilises data from Sphera LCA for Packaging which seeks to represent general products in the European market. The **technical background report** and the **verification statement** are available on Metsä Board's website.

A vital checklist

Material suppliers must uphold a number of requirements to ensure fibre-based packaging remains a valuable contributor to their customers' sustainability targets. Some of the most important of these include:

- Resource efficiency
- Sustainably and transparently sourced raw materials
- Non-negotiable product safety
- Low carbon footprint
- Quality consistency for high functionality

MetsäBoard Pro FBB Bright – more than your average paperboard

MetsäBoard Pro FBB Bright is a fully coated, bleached, multipurpose paperboard with a white back. Lightweight, pure, and strong, it has been designed for a range of end uses, including pharmaceutical, healthcare, beauty care, chocolate and confectionery, foods, graphic applications, consumer electronics, covers, cards, beverages, point-of-sale materials, and more.

Premium build quality

Thanks to its three-layer structure, MetsäBoard Pro FBB Bright is light yet stiff. The outer layers are made from chemical pulp and the middle layer is made from high yield pulp (BCTMP). The paperboard is both odor and taint neutral, and highly consistent with excellent printability and color reproduction.

Lightweight. High-performance. Low carbon impact.

Look at the examples below and see how packaging made using MetsäBoard Pro FBB Bright compares to conventional alternatives.

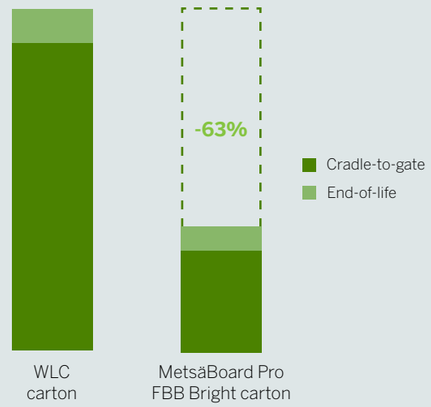
Read more about the product specifications in the link below.

Click and learn more

Change from WLC paperboard to MetsäBoard Pro FBB Bright paperboard

Case example 1

Switching from white lined chipboard carton (WLC) to MetsäBoard Pro FBB Bright 245 g/m² carton can reduce carbon footprint **over 60%**. *

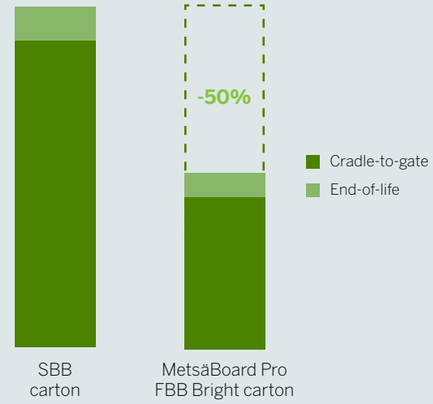


See the calculations

Change from SBB paperboard to MetsäBoard Pro FBB Bright paperboard

Case example 2

Switching from solid bleached board carton (SBB) to MetsäBoard Pro FBB Bright 280 g/m² carton can reduce carbon footprint **50%**. *



See the calculations

Ready to request a sample?

If you'd like to order a sample, or learn more about MetsäBoard Pro FBB Bright, contact us at Metsä Board today. We are happy to provide you with an analysis for your packaging as well as a resource-efficient paperboard alternative.

Contact us

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At Metsä Board, we calculate the carbon footprints of our paperboards following specific product category rules for processed paper and paperboard, which are based on ISO 14025 and ISO 14040/14044.

To further facilitate comparison between products individual characteristics are taken into account. When comparing products in packaging the stiffness is usually the defining characteristic that allows the packaging to perform as it should. With our folding boxboard we can bring down the weight of the packaging and still maintain a high level of stiffness.

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