



A unique family of
containerboards to serve
the most demanding
packaging needs

Avant™ by Stora Enso

Premium containerboards for optimising performance,
driving innovation and improving environmental footprint



We are the renewable materials company

Global megatrends continue to affect industries and businesses around the world. The signposts are quite clear, pointing to an acute need for raw materials that are renewable, recyclable and fossil free. From our customers' perspective, these global trends influence their choice of materials, utilisation of resources, operations, supply chain and logistics, in order for them to respond to the increasing consumer demand for reduced carbon footprint and eco-friendly products. Together, we can make a difference.

Stora Enso has an important role to play in the bioeconomy. We provide renewable solutions in packaging, biomaterials, wooden constructions and paper across global markets, increasing our customers' competitiveness in meeting their customers' demands for renewable material solutions.

Our solutions offer low-carbon alternatives to products based on finite resources. Our fiber-based materials are renewable, recyclable and fossil free. In addition, wood fibers can be recycled 5 to 7 times, making them a truly lasting solution filled with possibilities. We believe that everything that is made from fossil-based materials today can be made from a tree tomorrow.

To make the most out of every tree, intelligent solutions are needed. We deliver performance: our customers can achieve the same box strength with lighter papers, hence reducing material use, transportation expenses, emissions and costs. With constant product development, tomorrow's packages can be made stronger and lighter to reduce the amount of fiber, water, energy and transportation needed.



Our raw material is renewable, recyclable, and fossil-free.



Our products replace fossil-based materials.



Our renewable products contribute to a circular bioeconomy.



Why choose Avant Containerboards

When it comes to fiber-based packaging, we operate at every stage of the value chain from pulp production, material and packaging production to recycling. What separates us from most of the other containerboard manufacturers is our production of corrugated packaging products. Tested in the lab and on our very own corrugators, and co-developed with clients, our Avant containerboard products meet and exceed the demands set to our materials.

Our containerboards are used in virtually all packaging segments and applications for brand

owners on a global scale, especially in demanding fresh-food packaging applications.

Our high-performing products go hand in hand with our value-adding services – on-site technical support, customer service and supply chain services – which all help customers to get the most out of the packaging.

Our solutions serve leading converters, brand owners and retailers around the world – helping them to improve their business performance sustainably. Welcome aboard.



Avant products overview

Durable packaging materials

Corrugated boxes need to endure long transportation chains, represent brands and keep their contents safe. Boxes need to tolerate stacking, both top and side pressure, and crushing. On top of that, packaging plays a crucial part in fulfilling brands' sustainability goals.

Packages made from our containerboard are lighter than traditional boxes but just as strong. They feature high resistance to stacking, top and

side pressure, and crushing. You can cut and fold into an endless variety of shapes and print right on the surface for maximum shelf appeal. As less material is used, an eco-friendly and lightweight containerboard also helps in saving on shipping costs and lowering your carbon footprint.

Our containerboard is produced at ISO and OHSAS facilities, with FSC® and PEFC™ and FSSC 22000 certification on request.

Made of fresh and strong fibers

Our virgin fiber containerboards have been developed especially for demanding circumstances and tough requirements such as high humidity, temperature variations, long-distance transportation and direct food contact.

AvantForte WhiteTop & AvantForte Brown

The newest Avant portfolio member AvantForte is a 100% virgin fiber based, 3-layer structured kraft-liner for highly demanding end-uses requiring high stacking strength, purity and premium printability, such as corrugated packaging in **direct food contact and premium e-commerce**. Our new patented Tri-Ply™ technology gives the material higher compression strength and bending stiffness, and also a smoother surface that ensures very high print quality with less ink and defects.

AvantForte is available in brown and white top.

With these two options you can create packaging that truly fits your brand and business: AvantForte Brown is ideal for natural and eco-friendly brand communication, and AvantForte WhiteTop is well suited for an upscale visual appearance.

If your goal is to differentiate with premium packaging, AvantForte WhiteTop is the perfect corrugated material choice for you. It has the strength and purity needed for tough jobs, like **transporting and selling fruits and vegetables**, but also the looks needed to attract new buyers: thanks to an evenly bright and white surface, this OBA-free natural beauty really stands out in any end use and point of sale – whether the material is printed or not.

AvantKraft WhiteTop & AvantKraft Brown

AvantKraft is primarily virgin fiber based 2-layer structured kraftliner for end-uses requiring a good combination of high stacking and high bursting strength, and good printability such as **industrial and agricultural plastic free packaging**. AvantKraft offers superior protection and creep resistance during long transports, keeping in shape while being exposed to variable conditions. AvantKraft is available as brown and white top.

AvantFlute SC+

AvantFlute SC+ is our next-generation high-quality range of Nordic SC fluting. AvantFlute SC+ is frequently used **for fruit and vegetable packaging solutions, as well as other direct food contact segments**, where the purity of the material and endurance to long-haul transportation is essential. The strength of AvantFlute SC+ also makes it very suitable for industrial packaging and heavy-duty applications. It is appreciated for its runnability and lightweighting opportunities.

Avant containerboard products meet and exceed the demands set to our materials.

Made of selected recycled fibers

Our recycled fiber based containerboards have been developed using the latest technology available to craft a high-performing, multi-purpose renewable packaging material. The high quality of the recycled fibers is provided using Stora Enso's collection network and the sorting process at the mill. Customers value the excellent runnability and flatness. The products are suitable **for retail, furniture, homeware products, electronics and more**.

AvantLiner Recycled

AvantLiner Recycled is a highly versatile testliner used in varied needs of packaging solutions. We have perfected AvantLiner Recycled to achieve a consistent surface texture, smoothness, shade stability and elimination of any impurities. We guarantee a certain color shade, and this is appreciated by brands as it allows consistent brand communication. Customers also value its excellent printability.

AvantFlute Recycled

The excellent quality consistency and reliability is unrivalled, making AvantFlute a multi-purpose fluting of choice for applications in segments such as transport, furniture, electronics and retail. AvantFlute Recycled offers high levels of stacking strength, bursting strength and flat crush resistance. These properties allow for significant potential in rightweighting.





Services that support design, circularity, and renewability

Technical Customer Service and Converter Support team

Our Technical Customer Service and Converter Support team works in seamless cooperation with production, sales and converters to provide our customers with proactive expert consultancy.

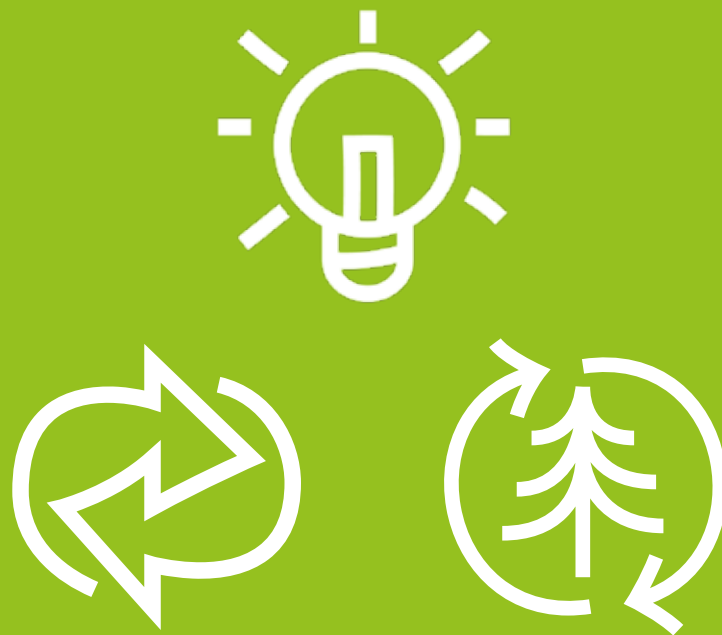
Our user-friendly e-tools and online services are reliable and can help you reduce costs, delays and errors through making buying easier.

We have many R&D experts that support customer innovation projects and continuous improvement of our products to meet customers' demands. R&D centres in Imatra and Karlstad

serve as a unique extra resource for instant technical customer service.

Innovation Centre for Packaging, Helsinki: Designing the packaging materials of tomorrow

We have a customer-centric setting for innovation and R&D projects. We collaborate with brand-owners, converters, and manufacturers to imagine sustainable, renewable, and recyclable packaging concepts. Our innovation centre also serves as a showroom for innovative product and prototype designs.





Reduced costs and increased packaging performance

Furniture manufacturer

A furniture manufacturer's yearly demand for packaging material was 10 000 000 boxes. We were able to exceed their precise requirements for containerboard material with Stora Enso's high-quality kraftliner AvantForte Brown. It provided the required box strength with 5% lighter material, and fulfilled their need for extremely durable packaging and excellent printability.

400 t less material used per year

7,6% reduction in raw material cost

221 600 kg CO₂ emissions reduction

Food segment

A customer who works in the agriculture segment needed help in improving their box solution, in this case for garlic boxes. For the top liner our solution was AvantForte WhiteTop enabling the customer to achieve pure and strong packaging with 7% lighter material. The customer is able to run the corrugator with higher speed and less glue usage, thanks to AvantForte WhiteTop good formation and profiles.

1000 mt less material used per year

5% reduction in raw material cost

152 000 kg CO₂ emissions reduction



The full potential of Stora Enso's solutions

A converter who provides boxes for retailers operating in the omnichannel supply chain faced multiple challenges, such as problems with package SKUs in stock, profitability issues and numerous complaints from the customers as some of the boxes did not tolerate the harsh transportation conditions without collapsing.

Our solution

A comprehensive combination of Stora Enso's products and services

- **Verifying sustainability** – a portfolio of recyclable and renewable materials from sustainable sources.
- **Avant product portfolio** – the right material for the right purpose.
- **Personalising** – both liner and fluting combinations for specific corrugated packaging needs.
- **Advance Board service** – rightgrading of box materials and correct recipes to fulfil requirements. Increasing running speed.
- **Advance Stock service** – simplifying stock management and ensuring shorter lead-times.
- **Technical seminars** – in-house knowledge for customer's key people.

This combination reduced the converter's costs and improved their performance with increased efficiency, and also resulted in higher running speed, higher material efficiency, fewer breaks, less waste and CO₂ emissions, and increased inhouse knowledge of corrugation processes.

The benefits also extend further along the value chain: converters can provide their customers optimised package weights, more eco-friendly packages, less wasted goods, premium brand communications and supply reliability.

10%

faster
corrugation
process

5%

less
materials
used



Made of renewable materials



Recyclable



Plastic-free

