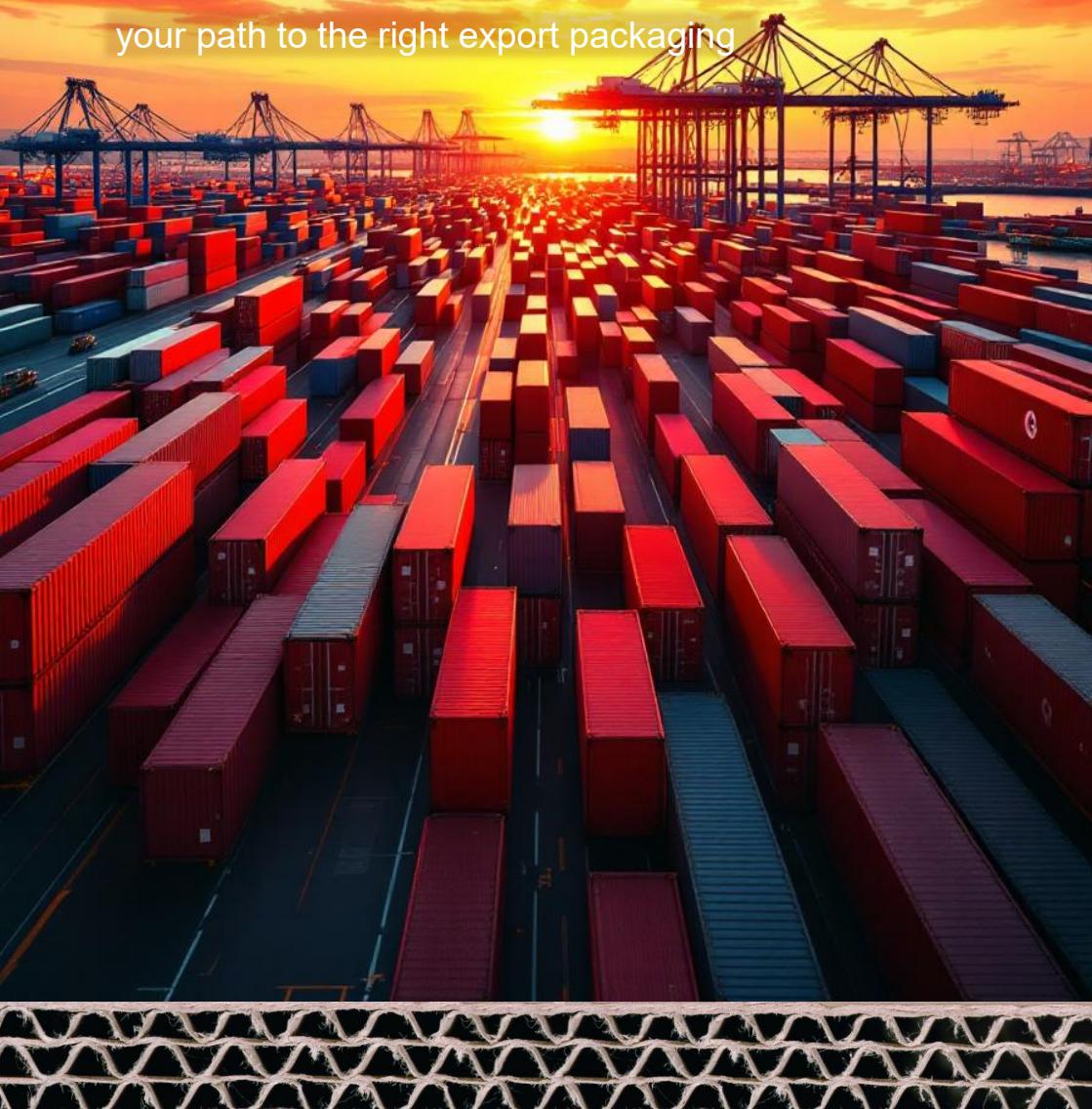


ExportGuide

your path to the right export packaging



Overview of your benefits

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NEFAB
SAVING RESOURCES

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emballage

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INTRO

A Guide to Making the Right Choice of Export Packaging

Packaging is first and foremost a matter of safety.

Safety in ensuring that your product arrives in the same condition as when it was shipped. Safety in preventing shipments from resulting in unhappy customers, lost revenue, and administrative hassle.

It is also a matter of safety at the **right price**.

It's easy to overpackage a product and pay disproportionately much for unnecessary false security.

Traditionally, choosing transport and export packaging has been about striking the right balance between quality and price. But in recent years, a third factor has quietly entered the equation — sustainability.

Responsibility plays a significant role in defining what “the right choice” is for you.

This is supported by a 2024 interview survey among FARUSA's Scandinavian customers, where as many as 85% expressed that sustainability and responsibility today play a crucial role in their choice of supplier for export packaging.

At the same time, all respondents believe that the focus on sustainability will continue to increase over the next five years. Choosing export packaging is therefore a puzzle with several pieces to consider, but ultimately it is your needs that determine which combination is the right one.

In this guide, we will go through some of the most important considerations you should make to end up making a good choice — in terms of quality, price, and the environment.

CHOOSING EXPORT PACKAGING

Types of packaging and their advantages and disadvantages

There are three main types of packaging most commonly used for export packaging:

- Wooden pallet collars
- Plywood crates
- Heavy-duty corrugated cardboard boxes

These three types of packaging have roughly the same strength, but each has its own characteristics.

Pallet Collars

Pallet collars are best suited for transport within national borders, where the collars can be returned and reused. They are durable, and since they can be folded flat, they take up minimal space when sent back

There is a natural flexibility with pallet collars, as you can adjust the number of collars and thus the height of the collars, according to the product being shipped.

However, pallet collars are less suitable for export to countries that do not already use pallet collars.

Partly because they are relatively heavy packaging, and partly because the collars often end up as waste since many countries do not systematically use pallet collar systems.

Increasingly, countries around the world are introducing sorting requirements for packaging waste, making pallet collars both difficult and unpopular for recipients to handle.

In some countries, the collars must be completely disassembled so that the wood and metal components can be properly sorted.

Plywood boxes

Plywood boxes are especially well-suited for shipping items, such as machinery that need to be securely fastened inside the box.

You can attach battens across the crate and, for example, screw the product firmly into the plywood box.

However, plywood crates are rarely reused, as they are typically considered single-use packaging.

Like pallet collars, this packaging solution is increasingly facing resistance in many parts of the world, as it is not the most sustainable option and several countries are introducing sorting requirements for waste, especially packaging waste.

This means you “impose” additional sorting work on your customer, which can negatively affect your company’s image and competitiveness.

Heavy Duty Cardboard Boxes

Heavy Duty cardboard boxes have the advantage of being a lighter material, compared to wood and plywood.

The box offers great strength in terms of stacking ability, resistance to penetration and bulging, and naturally has much higher strength than conventional cardboard boxes.

Using HD Clips, battens can be mounted across the inside of a Heavy Duty box, just like with plywood boxes.

Thanks to their low weight, cardboard boxes are beneficial for workplace ergonomics, both for the company packing and shipping the goods, and for the customer receiving the shipment. Additionally, Heavy Duty cardboard boxes can often be reused several times and are 100% recyclable after use.

RESPONSIBILITY

We give the other two packaging types a “green beating”

FOR YOUR, MINE & THE WORLD'S FUTURE

Although some might say we are biased when we claim that our packaging is better than others, the cold, hard facts speak for themselves.

In reality, it makes good sense, as production, weight, disposability, and materials are generally greener than those of other packaging types.

If sustainability interests you, or if it matters to the company, you are part of, you can find out what we as a company are doing to continue the green development on our website **fausa.dk** under the responsibility section.



WHICH TYPE OF EXPORT PACKAGING HAS THE LOWEST CARBON FOOTPRINT?

FARUSA has conducted a life cycle analysis (LCA)* of three comparable products to get an understanding of the carbon footprint each one has.

The three comparable export packaging solutions examined are:

- A plywood crate
- A Heavy Duty corrugated cardboard box
- A box made up of 3 pallet collars

The analysis “LCA Screening – Transportation Packaging” was conducted by Målbar in 2024. The communication of the report's conclusions is intended solely for B2B customers.

All three solutions have the same dimensions (L:1200 x W:800 x H:600 mm).

When comparing the packaging after a single use, the results are as follows:



170
KG. CO₂ EQ
Plywood
boxes



50
KG. CO₂ EQ
FARUSA
Heavy Duty



143
KG. CO₂ EQ
3
pallet collars



Plywood box



Heavy Duty corrugated cardboard

The corrugated cardboard box clearly has the lowest carbon footprint of the three options when used for export.

Since, for example, pallet collars are designed to be reused, it would be more accurate to also compare the packaging types after multiple uses.



3 Pallet collars

When looking at how the carbon footprint (CO₂eq = carbon dioxide equivalent) changes after, for example, 1, 5, and 20 uses, the results are shown in the table.

The table shows, however, that even if the cardboard box is reused only 5 times, its carbon footprint per use is still significantly lower than that of pallet collars reused 20 times.

| | | 1 use | 5 uses | 20 uses |
|--------------------------|-------------------|-------|--------|---------|
| Corrugated cardboard box | Emissions per use | 50 | 27 | 23 |
| | Total emissions | 50 | 136 | 460 |
| Plywood box | Emissions per use | 171 | 66 | 46 |
| | Total emissions | 171 | 327 | 914 |
| 3 pallet collars | Emissions per use | 143 | 59 | 44 |
| | Total emissions | 143 | 297 | 877 |

While pallet collars can typically be reused up to 20 times, it is less common for a cardboard box to be reused as extensively in all situations—and this is also less relevant when the box is used for export.



TRANSPORT OPTIONS

Sea, air, or road

By plane, ship, train, or truck?

The right choice of packaging is closely linked to how you will transport your products and how far they need to travel.

WHERE ARE YOU SHIPPING THE PRODUCT TO, AND HOW?

By plane:

If you are using air freight, the total weight of the package is crucial.



Every kilo saved is money saved, so it makes perfect sense to choose the lightest type of packaging that still provides adequate protection for the product.

At the same time, it's important to be aware that air freight imposes strict requirements on the package's dimensions and contents, as it must fit within the cargo space and ensure safety on board.

By Container Ship:

When shipping by, the key is to find a packaging solution that allows you to pack as much as possible into a container — for example, by stacking boxes on top of each other.

You need to avoid paying to transport empty space, so you need a packaging solution that can be customized to optimal dimensions and packed efficiently on pallets.

Check out our guide to package optimization in a shipping container at farusa.dk/blog and see the difference for yourself through the pictures.



By Container Ship:

Read more here:



If you choose, for example, a Heavy Duty corrugated cardboard quality, you will often be able to stack the boxes in multiple layers, thereby optimizing transportation — unlike when using conventional cardboard boxes.

At the same time, you must ensure that you choose packaging that is durable. The goods must be able to withstand very rough handling during sea freight, so you need to account for certain safety factors when selecting your packaging.

Even though the container is sealed, it will become extremely humid due to the large temperature fluctuations at sea, making condensation a natural factor.

Therefore, it is important that your packaging is weather-resistant and approved for overseas transport.

Truck:

If you transport by road, it's also important to choose a packaging solution that ensures you can make optimal use of the space on the truck. For example, by selecting a quality that is strong enough to be stacked.

If you are transporting through countries like Germany, you should be aware that there are strict requirements for load securing — which means the packaging must be able to withstand being strapped down.





Train:

If you are transporting by rail, it's naturally also a matter of optimizing the package size to make the best possible use of space.

However, it is equally important to pay attention to the choice of packaging quality.

The packaging must be able to withstand the strong shunting impacts it will be exposed to. In this case as well, a safety factor should be taken into account.

Transport Tip: Don't underestimate transportation

One of the most common pitfalls we see is that people underestimate how much strain their shipments are exposed to during transport — and therefore fail to include the necessary safety factor.

You've already come across the term "safety factor" a few times.

Since cargo essentially shifts in weight — or more precisely, in weight pressure during transport (due to waves, air pressure, or potholes, the load will change throughout the journey) — we calculate the safety factor for you.

That means you can confidently leave the safety considerations to us, as we tailor our calculations to the specific mode of transport.

Packing

How should you pack it?

AND HOW SHOULD YOUR CUSTOMER UNPACK IT?

Your export packaging shouldn't just be optimized for the transport between you and your customer.

It's also important to consider how you pack your goods — and how your customers want to receive them.

When it comes to packing, special attention should be paid to the working environment. We have customers who have switched to using cardboard boxes as their packaging solution, primarily because their previous packaging was so heavy to handle that it caused shoulder injuries and employee sick leave.

So it's also about designing an export packaging solution that is easy to handle — meaning both quick to pack and light to lift.

At the same time, it's important to think all the way through to the customer's receipt and unpacking of the goods.

The requirements here will vary from customer to customer. Sometimes it's a matter of the shipment needing to be unloaded from a specific side of the truck; other times it's about easily lowering a very heavy shipment to the ground to move it further.

There's no one-size-fits-all answer to what the right solution is in this context, but both packing and receiving must be considered when choosing packaging, for the sake of your working environment and your customer's overall experience.



QUALITY

MANY DIFFERENT TYPES TO SUIT YOUR NEEDS

What grade of cardboard you need is a question we rarely ask — unless you're a packaging expert.

Instead, we ask other questions. If you've already determined that Heavy Duty corrugated cardboard is the right packaging type for your needs, our focus shifts to selecting the right **grade** of cardboard. Because the *best* grade isn't necessarily the *right* grade.

Overpackaging may certainly protect your product, but it also makes the packaging unnecessarily expensive. So the goal is to choose a quality that is "good enough" for your needs. When we help our customers find the right grade of cardboard, we consider things like:

How strong does the box need to be?

Strength requirements help determine whether we can use recycled cardboard or if virgin fiber is necessary.

Virgin cardboard is cardboard that has not been recycled. Recycled fibers are weaker. They're suitable for many purposes, but far from all. It's also a matter of whether we can "get by" with 2-ply cardboard (2 flutes), or whether we need to step up to the stronger 3-ply version (3 flutes).

If you want a Heavy-Duty box with a higher proportion of recycled material, it may, for example, be necessary to move from 2-ply to 3-ply.

The quality of Heavy-Duty corrugated cardboard is partly determined by the flute height and the weight. You will typically be presented with cardboard weights ranging from **1150 to 2500 g/m²**, whereas standard cardboard is usually **between 500 and 750 g/m²**.

Be aware that a hand sample of thinner cardboard may initially feel quite stiff and strong.

This is because the flutes are lower in thinner grades, but that doesn't mean it's strong in terms of stack ability or resistance to puncture.

CONSTRUCTION AND REQUIREMENTS

HOW SHOULD THE CONSTRUCTION BE?

Should the packaging be made with flaps that can be closed, in two parts that are assembled, or in a completely different way?

The construction itself can also help determine which type of cardboard should be used.

Does it need to be weather-resistant?

All Heavy-Duty cardboard grades are glued with a waterproof adhesive, while regular corrugated cardboard is glued with starch made from corn, which dissolves in cold water.

Many of our Heavy-Duty grades have a hydrokraftliner both inside and outside, making the packaging weather-resistant. This means our HD grades can withstand being outside in the rain for several hours but are not suitable for permanent outdoor storage.

Does it need to be stackable during transport? Sometimes it makes economic sense to choose a higher grade, even if the extra strength costs around 25% more. This can mean the boxes can be stacked during transport, significantly reducing shipping costs.

Does it need to be reusable?

Similarly, it can be advantageous both economically and environmentally — to choose a higher quality so the box can be reused multiple times, perhaps up to 10 times. This way, the overall cost becomes lower than choosing a quality that must be discarded after a single use.



THE DECISION

CONSIDER ALL ASPECTS

MAKE THE RIGHT CHOICE

If you don't have extensive experience designing export packaging, finding the right solution can be a complex task. That's why one of the best pieces of advice we can give you is to involve the people who will be working with the packaging daily.

Often, a short meeting is enough, where representatives from purchasing, production, warehousing, and supply chain come together to define the product requirements and packaging preferences.

It can also be a good idea to include the supply chain function, as they often have a holistic view of the demands and priorities related to cost, work environment, and so on, which purchasing and production focus on.

If you don't have significant internal experience with designing export packaging, it can be beneficial to involve a supplier as well. Work with the supplier as a partner — most manufacturers want you to succeed with your export!

As manufacturers, we can advise you on which solution best fits the needs you describe.

The right supplier will be able to challenge your perspectives and ideas and guide you to the best solution in terms of quality, price, and sustainability.



SUMMARY

5 Key Tips

We have covered a wide range of topics related to the export industry — primarily with a focus on packaging.

If you want other perspectives, help, or advice, you can always find it on our website or get more inspiration on the back of this folder.

You are welcome to book a meeting without obligation by phone or through farusa.dk



1. Focus on strength, stackability, and packing optimization.
No one wants to pay for shipping air.

2. Add a safety buffer when choosing quality. Transportation is crucial, but avoid overpackaging.

3. The shipment process starts when the product is packed and only ends when the customer has unpacked it.

Packaging design must consider the entire journey from start to finish.

4. Involve the people who will handle the packaging daily in the decision-making process.
You get fresh perspectives and take important practical factors into account.

5. Ask your supplier for technical specifications and documentation regarding quality and sustainability.

This provides a solid basis for comparing offers.

NEWS

Get free knowledge & inspiration

Do you love new knowledg e too?

On our news blog, you'll find articles that offer perspectives from across the export and packaging industries.

Topics include optimizing packing for shipping containers, freight, five mistakes you'll want to avoid — or if you simply want to learn more about us and what our products can do, you'll find it all on the news blog.

We also encourage you to subscribe to our newsletter, which is published about four times a year and covers relevant topics from the industries.

To make it really easy for you, you can scan the two QR codes for the news blog and newsletter.



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FAQ

And Our Answers

“Is your production located in Farum?”

Yes, both our headquarters and production are located in Farum. This also means we comply fully with Danish legislation and labor agreements.

“What is your packaging recommendation?”

In addition to being a manufacturer, we have packaging consultants who visit customers on-site. We’re happy to assess what needs to be packaged, how you work, and how your facility or production is set up. With that insight, we can offer you the best possible advice — even if we might not be the perfect match for a specific product.

“What are you doing for sustainability?”

In addition to renewable energy agreements and electric vehicles, you can read our full responsibility policy at farusa.dk

“Isn’t cardboard just cardboard?”

Yes, you could say that. It is produced as cardboard, without any magic potion added. Therefore, it’s cardboard.

BUT — the difference lies in the fibers we use and the qualities we work with. One example of the strongest quality we use today has been pressure-tested to withstand a force of up to 6 tons.

“Why is cardboard more sustainable?”

If you visit our news blog at farusa.dk, you’ll find the “hotSpot” report on the product life cycle. In short, cardboard can do the same (if not more), it weighs less, and it can be 100% recycled after use.

“Do we have to order 1,000 pieces?”

NO — not at all. We have no minimum order quantity for what we produce. Our existence is about tailoring quantities and dimensions to fit your needs. However, the quantity does affect the price. As with all manufacturing companies, producing smaller quantities costs more per unit.

LIGHTER, STRONGER – GREEN

We are a Scandinavian specialist in Heavy Duty corrugated cardboard packaging, delivering custom-designed export packaging to companies across all export industries.

FARUSA has been around since 1923 and has always been a solid and reliable partner — with consistent Danish ownership. We serve customers who all demand:

- Extremely strong packaging
- Lightweight packaging to improve workplace safety and reduce transport costs
- Packaging that can be reused for years — and 100% recycled after use

If you feel inspired by our approach to export, packaging, and the environment, we invite you to visit our website at farusa.dk.

There, you'll find access to our **news blog**, filled with knowledge, inspiration, and insights into the export industry and the potential challenges throughout the value chain.

Don't forget to sign up for our newsletter on the site as well.

On our news blog, you'll find articles such as:

- Get more out of your export
- Total Cost of Ownership (TCO)
- **FARUSA** – under the hood
- 5 Packaging mistakes that can delay your export
- 3 packaging trends in 2025



SCAN the code
& find your advisor

FARUSA emballage a/s
Bygmarken 14
DK — 3520 Farum
T: +45 4434 0999
emballage@farusa.dk
www.farusa.dk