sapa:

This is how we **pack** your **profiles**

Sapa Profiles' aim is to provide complete solutions; from concept to production and delivery of aluminium profiles or components. The packing, which aims to protect the profiles and makes the handling of the profiles easier during storage and transport, makes up an important part of this flow.

The packing method that is most commonly used today is wrapping, i.e. plastic film packing. There are also several other packing alternatives we can make use of to satisfy our customers' requirements.

The packing should:

- Protect the profiles from external damage and prevent the profiles in the pack from damaging each other.
- Be done with minimal usage of packing materials to reduce costs and protect the environment.
- Have a design that is standardised and tidy.
- Be effective and offer practical handling.

Furthermore:

Packing and working methods are tailored to minimise the risk of accidents. A standard method should therefore be chosen before others.

Wrapped profiles in a large bundle.

Standard methods

Wrapping, wrapped packs in stillages, stillage packing and packing in wooden crates are our standard methods of packing.

Plastic wrapping

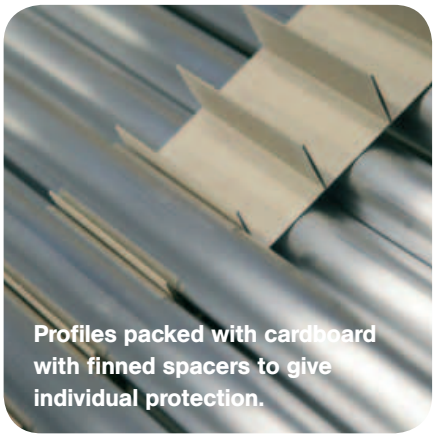
Plastic wrapping is an inelastic, multi-layered plastic film made out of cross laminated polythene that is strong and hence gives a secure and stable pack that is also wet resistant.

Packing with plastic film gives the same opportunity for variation when it comes to inner protection and pack size as carton packing. Plastic wrapping will replace cartons as our standard method for outer packing.

Plastic wrapped packs have the advantage that they can be delivered in a large bundle.

Measurements of a single pack:
Max 400 mm x 400 mm
Min 100 mm x 50 mm

- The profiles are placed on a base board to protect the pack and give stability.
- Cardboard spacers, paper or plastic can be placed between every profile layer as protection.
- Cardboard with finned spacers is most often used to protect each individual profile.
- The pack is wrapped with plastic film with a closed latex overlapping.
- If needed, extra strengtheners, e.g. in the form of paper angles, can be used to protect the corners and generally protect against forklift damage.
- Open pack ends are standard as closed ends can allow condensation to build up on the profiles.
- The wrapped packs are stacked on top of each other in a large bundle.



Profiles packed with cardboard with finned spacers to give individual protection.

Layered protection with cardboard spacers.

Standard methods

Plastic wrapped packs in a stillage.

Wooden crates

Stillage lengths
4000 mm; in some exceptions longer stillages can be used.

Maximum profile lengths
Overhang from stillage:
Approx 1000 – 1500 mm
Width: 800 mm, max inner measurement load width 720 mm
Stillage weight: approx 60 kg
Max load: 800 kg excl. own weight


Stillage packing

Plastic wrapped packs in a stillage

Plastic wrapped packs can be delivered in a stillage if it makes the customer's handling and storing easier.

Stillage packing

Stillages are good load-carriers when the profiles are being transported directly to production, e.g. for treatment.

- The profiles are placed in a stillage.
- If required, a base board is used at the bottom of the stillage as protection against forklift damage and as support for the profiles.
- Cardboard spacers, paper or plastic can be used as layered profile protection.
- Cardboard with finned spacers is most often used to protect each individual profile.
- The stillage is covered with plastic to protect against damp and dirt.
- The stillage is banded in two places with wooden batons to protect the goods.
- This is not allowed for deliveries outside Scandinavia.

Wooden crates

Wooden crates are mostly used for cut profiles in short lengths, treated profiles, or when it makes handling easier for the customer.

Foam, cardboard with finned spacers or layered cardboard are used as inner protection.

Crate variations – outer measurements
Europallet: 1200 mm x 800 mm
Double Europallet:
2400 mm x 800 mm
Maximum 5 planks high

Special packing

When the standard methods of packing are not suitable there are alternative special packing methods. These often bring about increased packing costs.


Bundles


Carton packs

Bundles

Bundles suit profiles with low need for outer protection. The profiles are banded with batons and wooden blocks.

If required:
- Cardboard strips can be used as inner protection.
- Base boards can be put under the bundle to prevent surface damage during loading.
- The bundle can be covered with plastic to protect against damp and dirt.

Stretch film

This packing method is similar to plastic wrapping and is often used as transport packing for slim profiles. It is suitable for profiles that have been cut into shorter pieces.

- The profiles are wrapped in elastic stretch film. It can be stretched by 200%.
- In most cases, inner protection is not used.
- The packs can be packed into a stillage.

Carton packs

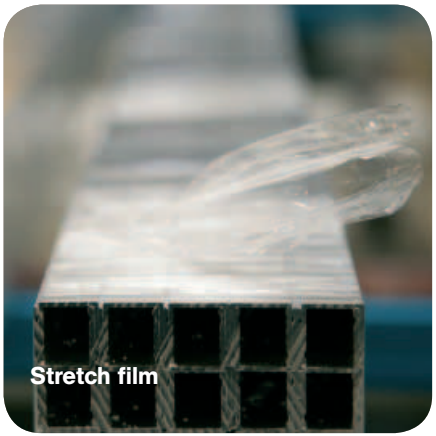
Carton packs are primarily used for treated profiles.

Long length profiles
- Are packed into cartons made out of cardboard.
- Cardboard spacers, cardboard with finned spacers, paper or plastic can be used as inner protection.
- Are banded with batons and wooden blocks.
- Give good outer protection.

Short length profiles
- Are packed into cartons made out of cardboard.
- Layered cardboard strips are used as inner protection or alternatively bulk packing where suitable.

Bespoke packing

For some larger volumes, special packing materials owned by the customer can be used.


Stretch film

Profile protection

Cardboard spacers are generally recommended as protection between each layer of profiles, but paper or plastic can also be used. To protect each individual profile, cardboard with finned spacers are often used.

Spacers made out of cardboard as layered protection.

Inner protection

Cardboard spacers

Cardboard can be used as spacers (long strips) to protect each layer or as cardboard with finned spacers to protect each profile individually.

Advantages:

- Strong cardboard gives a stable and damp-resistant protection.
- A rational way of packing.
- Environmentally friendly material.

Cardboard with finned spacers

Cardboard with finned spacers is used when individual packing of profiles has been requested. It gives good inner protection that prevents metal to metal contact, which otherwise can cause surface damage during transport, handling or storage. The cardboard with finned spacers' shape can vary depending on need.

Measurements max/min
Width: 100 mm
Length: 100 mm/1500 mm
Fin height: 12 mm/70 mm
Distance between fins: 11 mm/900 mm

Outer protection

Forklift protection

To prevent damage from forklifts, protective material is placed under the pack. If needed, hard paper angles can be used in the corners.

Extra protection

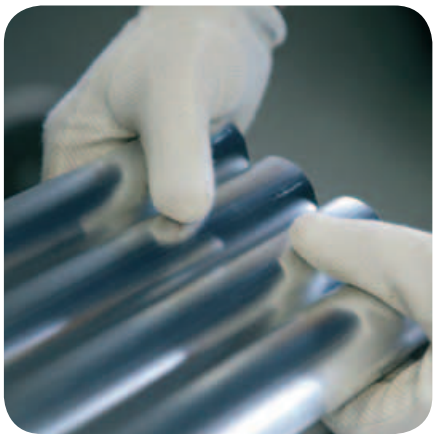
The most common additional protection of profiles are:

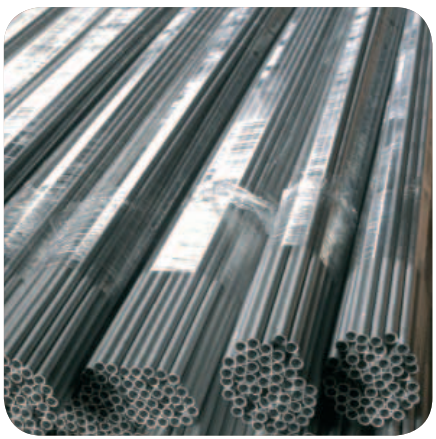
- Protective angles, made out of paper with layers glued together, used to protect corners when carton packing or wrapping has been done.
- Wooden batons used to give the pack stability and to protect during loading.
- The wooden frame is made out of two wooden batons held together by transverse wooden batons and supported at the bottom. The frame is used to give the pack stability and to protect during loading.
- Wooden blocks are placed under the pack so that the forks on trucks and other loading machines are unable to cause damage during loading.

Cardboard with finned spacers to protect the profiles individually.

Protective angle for corner protection.

Wooden frame to stabilise and protect during loading.





Storing

Aluminium profiles that are not surface treated must be stored in a dry place indoors where the temperature is warm enough to avoid condensation that can lead to corrosion of the profiles.

Transport damage

The buyer must immediately report any visible damage to the goods or any damage that can be seen as having occurred during transportation. This notification should be advised by marking the delivery paperwork accordingly.

Environment

Wherever possible, Sapa uses packing material that can be recycled.

Please consider:

- Small parcels take longer to pack than large ones. Every packed parcel takes a certain amount of time to pack. Therefore, many small parcels mean larger costs than one big parcel. The maximum size recommended for wrapped packs is 400 x 400 mm.
- Utilise larger packs where possible. They are more effective to handle.
- To protect each individual profile with anything other than cardboard with finned spacers, e.g. folded paper, often means double packing time.
- Wooden reinforcements and paper angles mean increased working time but are sometimes demanded for quality reasons during transportation.
- Extras, above the standard, mean higher costs for packing and also in working time.
- Export packs should have superior packing to protect during long transportation and possible transshipments. Please discuss this with your sales person.
- Where needed, and for large volumes, customer-adapted wrapping film can be produced to show the customer's logo or if preferred, completely neutral wrapping film.

It is important to discuss a suitable packing method at the quotation stage.

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We are **shaping** the future.