

standard for delivery of goods to global supply center

Version 1.0 | March 2024



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Contacts and validity

Issuer	BU Digital Systems
Topic Owner	Franziska Friedrich, Packaging Coordinator EURASIA
Geographical validity	Global goods delivered to Europe and APAC
Organizational validity	Inventronics GmbH
Valid from	March 2024
Target groups	<ul style="list-style-type: none">- suppliers- plants- Inventronics colleagues who have touch points to logistic topics- Inventronics purchasing colleagues who deal with merchandise suppliers
Not in scope	<ul style="list-style-type: none">- Dangerous goods (for questions regarding deliveries of dangerous goods, please contact the responsible colleague from purchasing department)- Deliveries shipped from Inventronics

General

Supply Chain procedures and processes are becoming increasingly important in relationship between Inventronics GmbH and their suppliers.

This standard for delivery of goods to global supply center is intended as a mandatory guide to be used by plants and suppliers to clarify any difficulties and questions that may arise. Suppliers must take all necessary actions to meet the supply chain requirements stated in this standard.

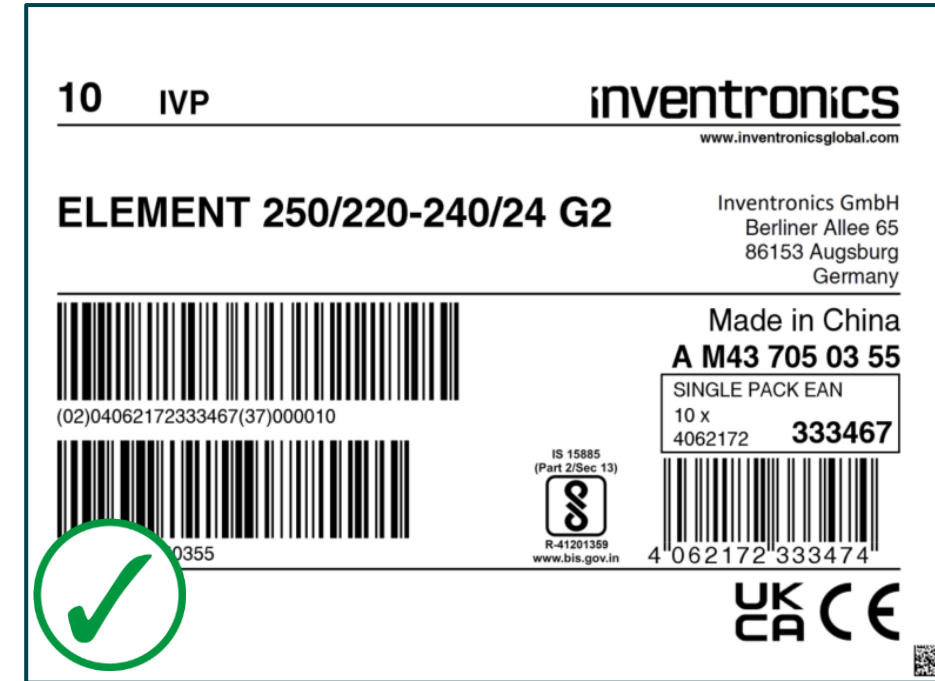
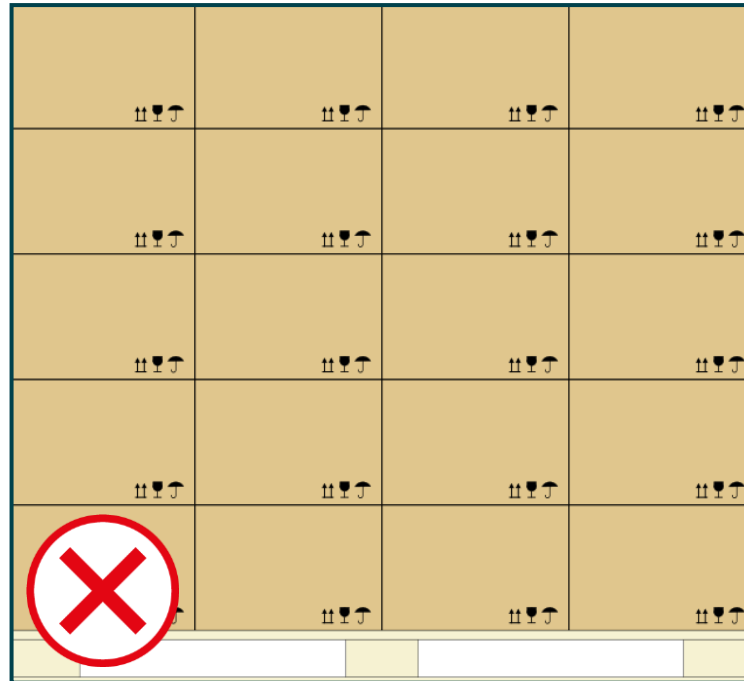
Compliance with the content is essential and will affect future sourcing decisions. It is therefore recommended that plants and suppliers inform all responsible personnel of the contents of this standard.

In case of conflicting rules between this standard and any other written agreement between the supplier and Inventronics GmbH, it must be decided case by case which document shall prevail.

Shipment advice

Shipment advice

Label on shipping box



Each shipping box must be labeled with a label agreed with Inventronics GmbH.

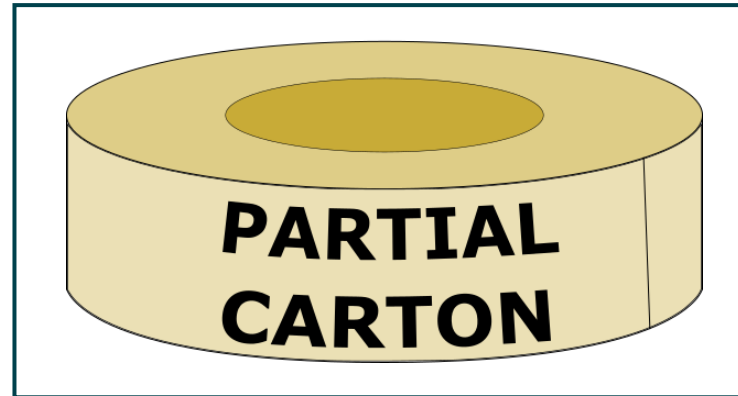
Shipping box label must be visible outside, if technical applicable.

Each carton and each pallet must be labeled. If article are sold as single pieces, each article must be labeled too.

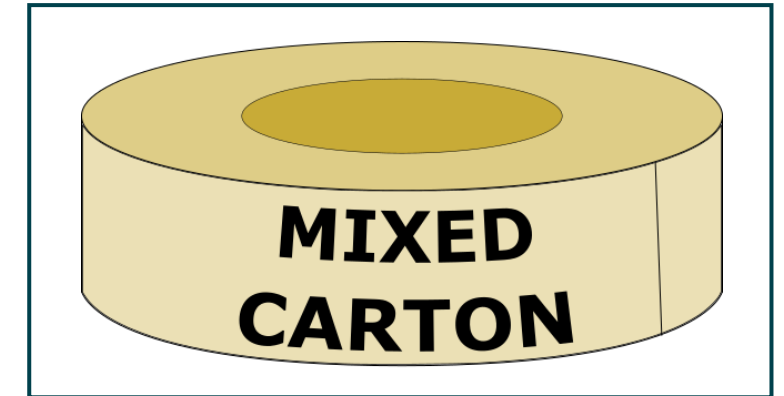
Labelling: Mixed boxes, partial quantity



Mixed cartons and partial quantities must be marked accordingly.



Opened cartons must be marked with remaining quantity and special tape.



Mixed cartons must be marked with special tape.

Shipment advice

Labels may not be stucked directly on shipping boxes



Delivery note and packing list in document pouch (one per shipment).
Address label on each pallet with shipper and receiver and number of pallets (1/3, 2/3, 3/3).



No dispatch labels directly on boxes / KLTs.

Shipment advice

Delivery note | Packing list



Example of standard delivery with packing list and advice note.

Advice Note							
<u>Delivery Address</u>			<u>Shipper</u>				
<u>Invoice Address</u>			Contact				
			Tel.				
			Fax				
			E-Mail				
			Your reference / date				
			Supplier No.				
			Order No.				
			Cust. No.				
			UCR				
			VAT No.				
			Registration-Nr.				
			VAT ID				
Consign. No. / Date:							
Shipment number:							
Delivery type:							
Carrier:							
Incoterms:							
Further references:							
Goods labeled with "AL not equal to N" are subject to European export authorization when being exported out of the EU.							
Goods labeled with "ECCN not equal to N" are subject to US reexport authorization. Even without a label, or with label "AL:N" or "ECCN:N", authorization may be required due to the final whereabouts and purpose for which the goods are to be used.							
Line	Identocode Product	Article Description Customer product No.	Ordered	Qty desp.	Full cartons/ units	Part cartons / units (pcs)	Gross Net
10							
Total							
Loaded on							
Further packing-aids							
You received packing-aids							
Total - Net:			Total - Gross:				
Address: Postal address:							

Palletizing



Palletizing instruction for each Ident code (IC)

The palletizing is described in detail in the ZLP-document, that is created for each IC.

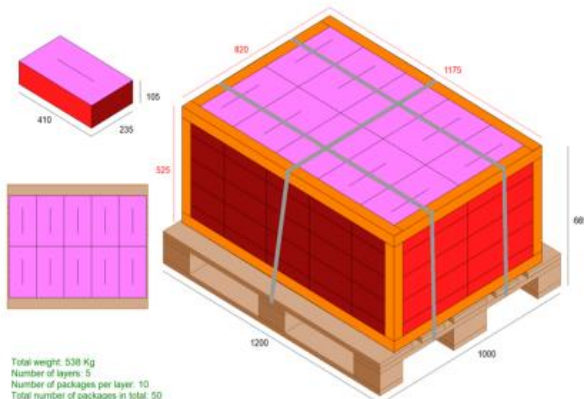
inventronics

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Palletizing Instruction Page 1 of 1

Material No.	15128839
Document No.	ZLP 4531125 EN 00
Creator	Linda Belická
Lab Office	S15

Instruction for container loading see *Inventronics standard for delivery of goods to Global Supply Center*
General according to *Packaging Requirements by Inventronics, Cap. 5.*



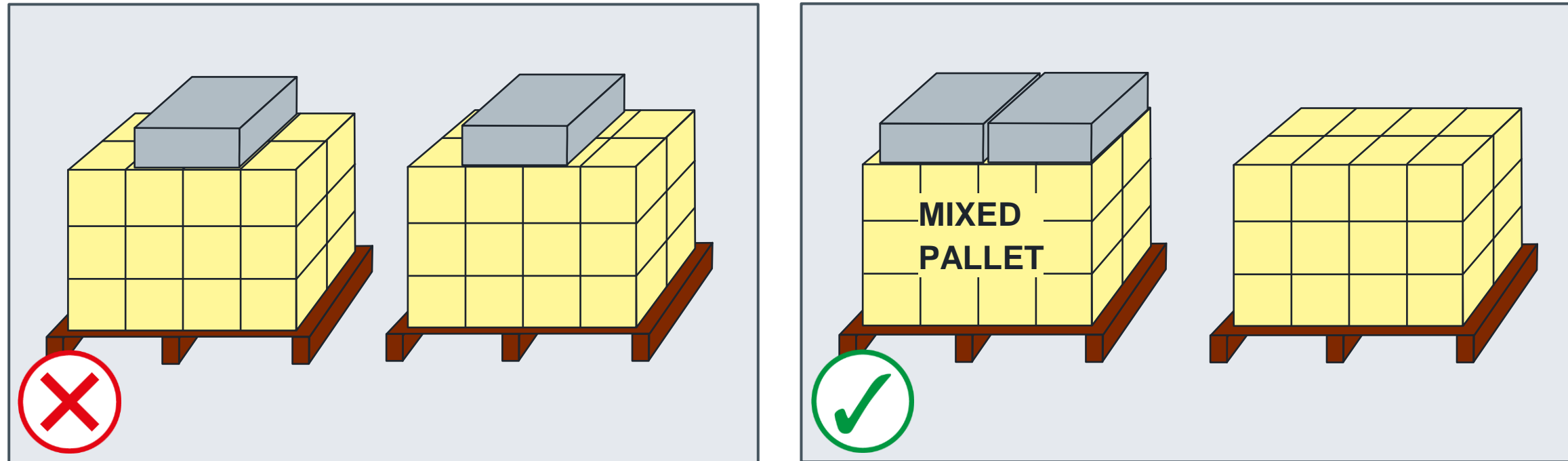
Total weight: 538 Kg
Number of layers: 5
Number of packages per layer: 50
Total number of packages in total: 50
Utilization of area: 80,3 %

The supplier is responsible for the quality and delivery of the products and therefore also for compliance with this palletizing instruction.

<small>Signed: 18.3.2024</small>	<small>Inventronics Packaging</small>	<small>Subject to change without notice. Errors and omissions excepted.</small>
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ADP&QM PIP # Franziska Friedrich # inventronics
AP palletizing information & layout # 2024-03-18 # AP-Approval Pending
ZLP 45 29654 EN 00

Single and mixed pallets: No Ident code (IC) splitting



The same article should not be packed on different mixed pallets.

Mixed pallets must be sent separately, do not wrap them together with pallets containing only one article.

Mixed pallets with several articles must have an index label with the quantity of each article and must be marked as **MIXED PALLET** on two opposite sites.

Single and mixed pallets: DON'Ts



Stability of multi-item pallets has to be ensured.



Same palletization rules for single and mixed pallets:

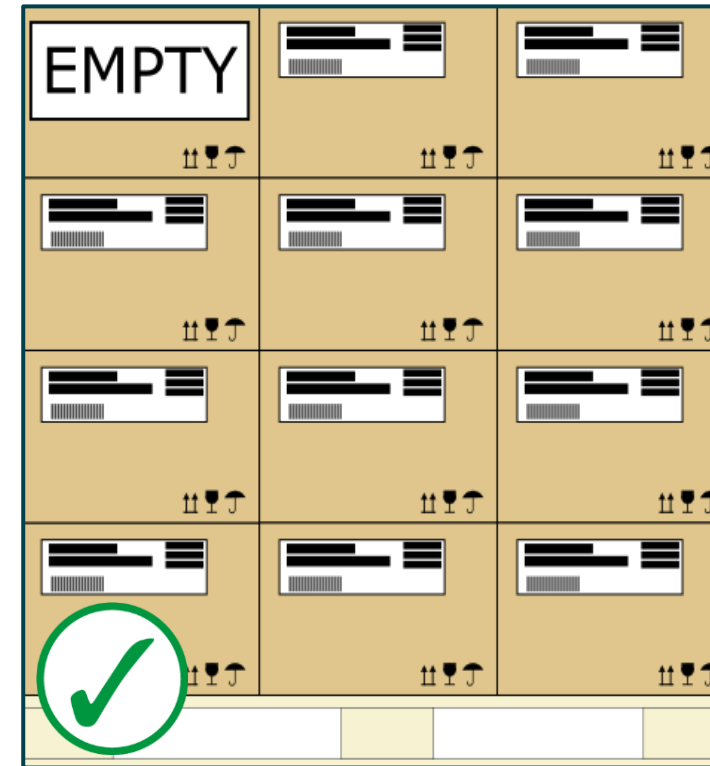
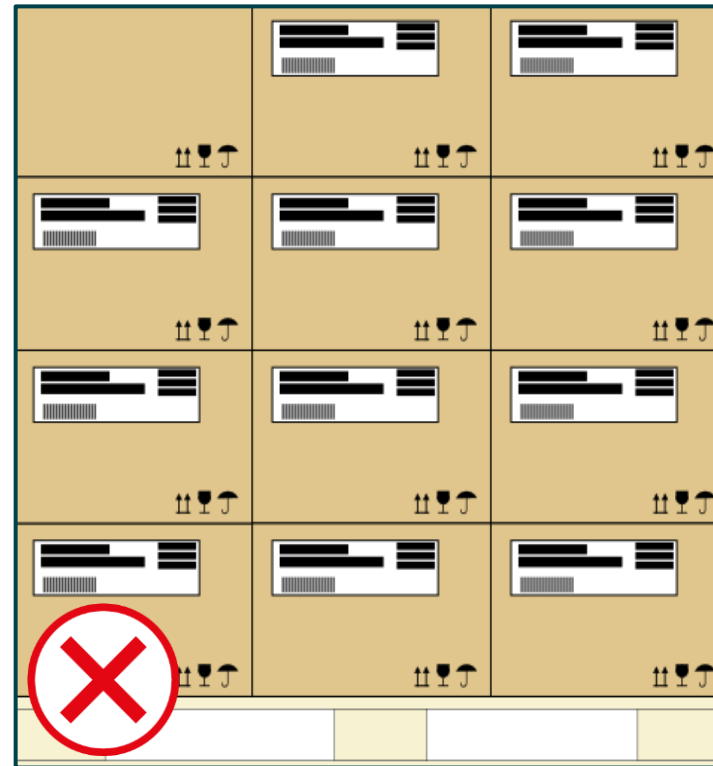
- Homogeneous layers, with edge protection if necessary.
- Complete covering of the pallet with plastic film as protection against theft and against falling out of individual boxes.

Partially filled layers

Optional – If necessary empty boxes or KLTs can be used to increase stability of pallet.



Shrinking with partly filled top layer.

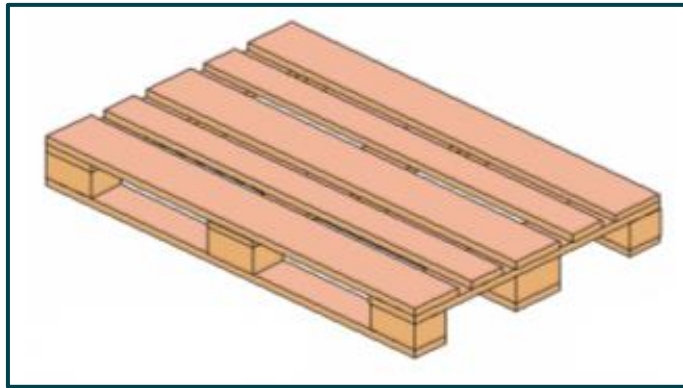


Empty boxes can be used to increase the stability of a pallet or complete a full layer but they must be marked as **EMPTY**.

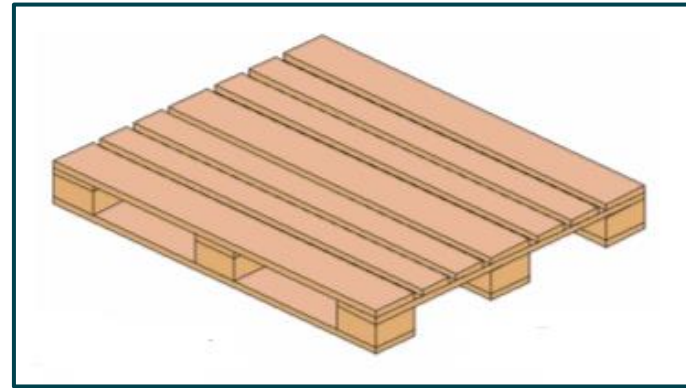
Types of pallets used for Inventronics GmbH – EMEA and APAC

New pallets or minimum class A pallets must be used.

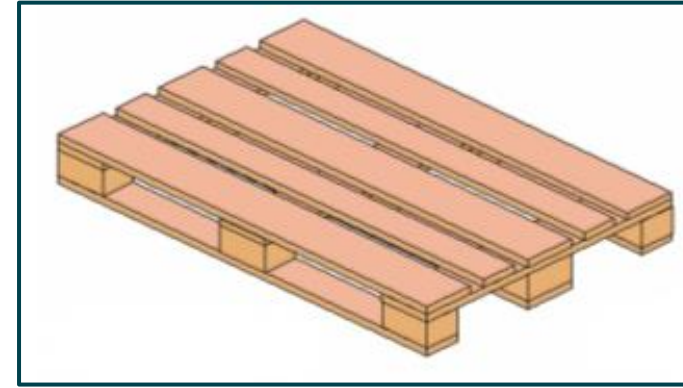
IPPC EUR-PAL 1200 x 800 mm



IPPC Industrial pallet 1200 x 1000 mm



IPPC One-way pallet 1200 x 800 mm or 1200 x 1000 mm

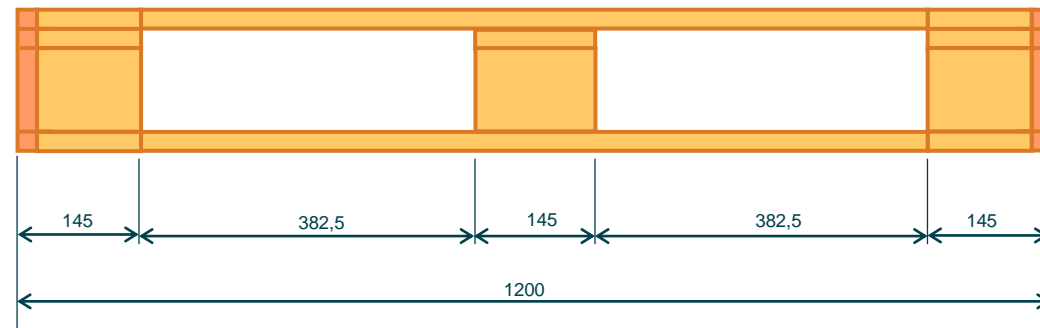
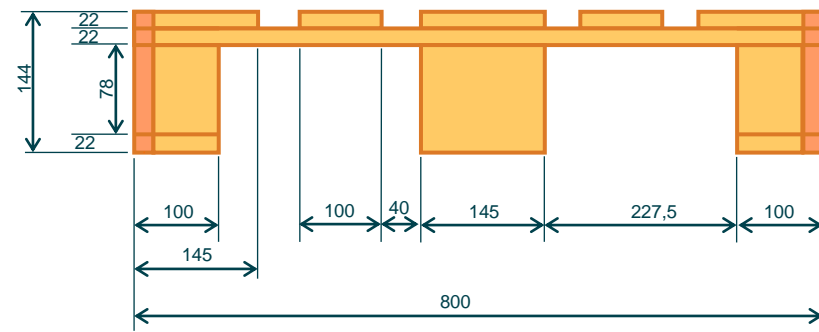
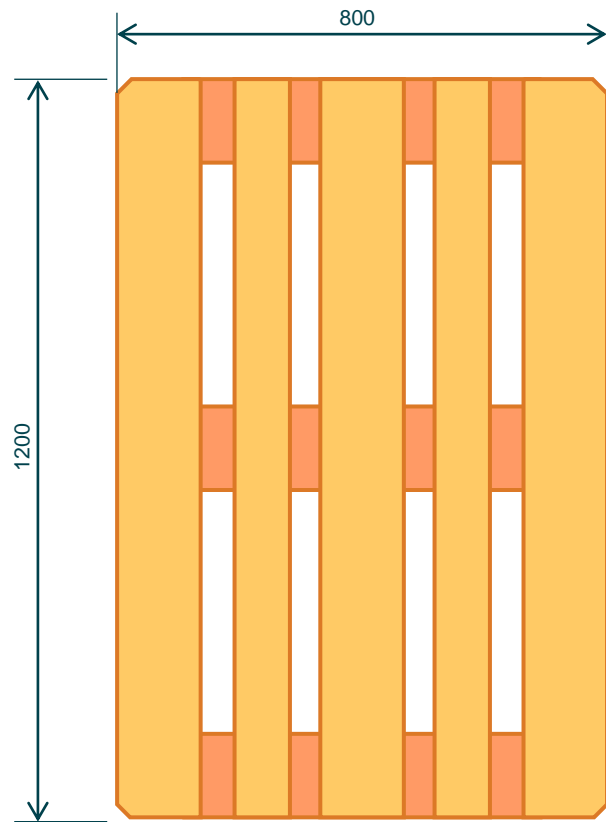


- IPPC EUR-PAL (1200 x 800 mm)
- IPPC pallets, wooden and plywood pallets (1200 x 800 mm or 1200 x 1000 mm)
- IPPC One-way pallets (1200 x 800 mm or 1200 x 1000 mm)
- Width of pallet foot: **min. 100 mm** (space for fork lifter)
- Space between single pallet feet: **min. 225 mm**
- Load carrying capacity: min. **600 kg**
- 4-way pallet

Palletizing

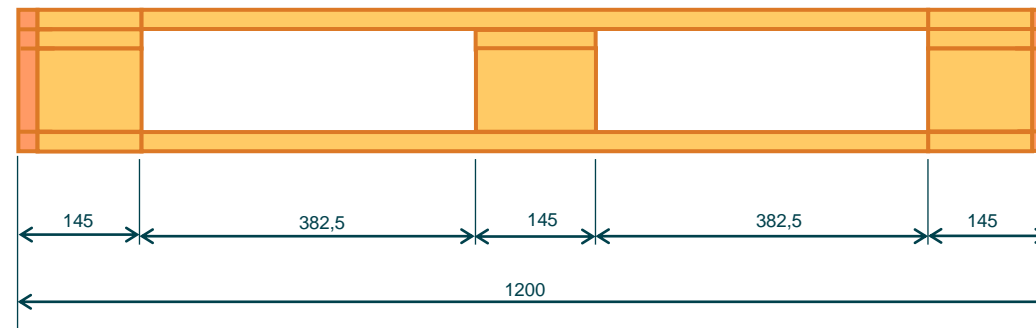
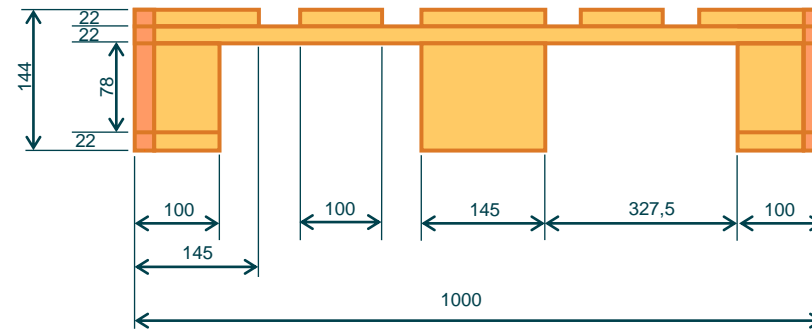
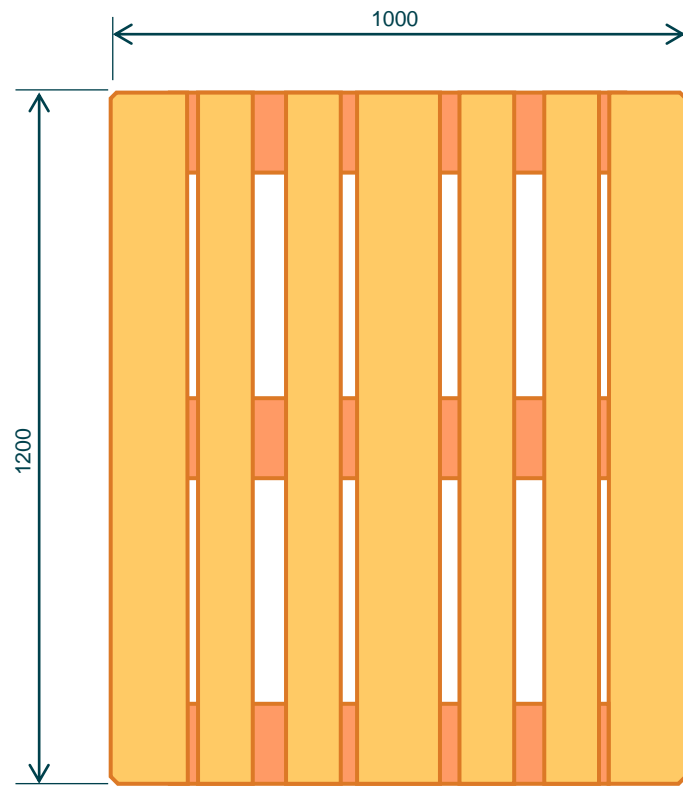
EURO pallet

IPPC EUR-PAL: 1200 x 800 mm



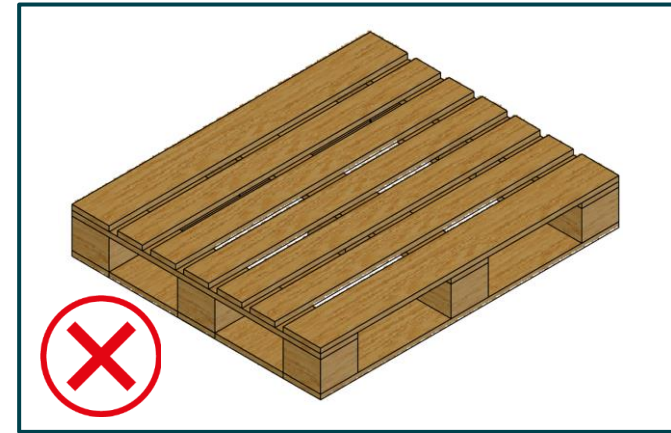
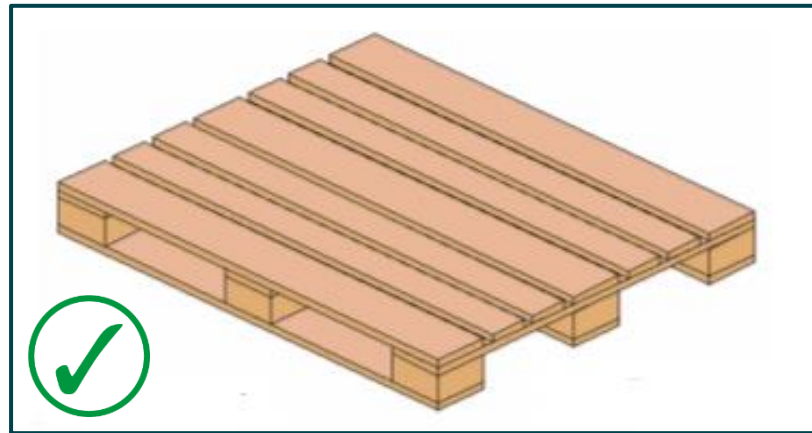
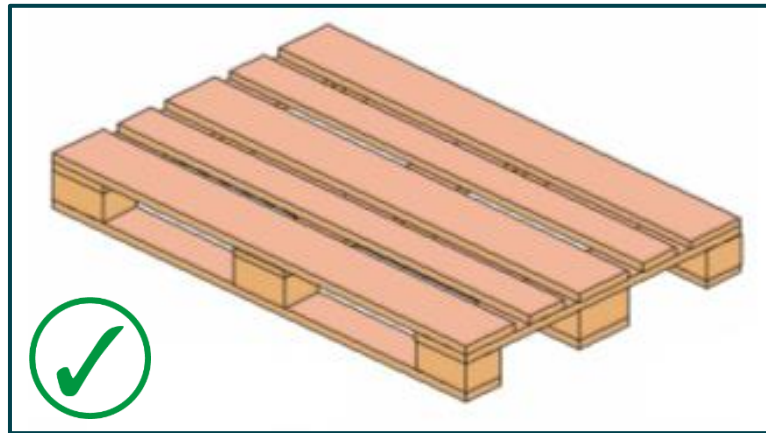
Industrial pallet

IPPC Industrial pallet: 1200 x 1000 mm



One-way pallets

IPPC One-way pallet: 1200 x 800 mm | 1200 x 1000 mm | long pallet



- Dimensions of the individual components are based on EUR- and Industrial pallets.
- IPPC special pallets (e.g. long pallets > 1600 mm).
- Plywood: high quality processing must be guaranteed (damage during transport and storage is not permitted).
- Double-deckboard is not allowed.

Palletizing

Quality issues: DON'Ts



Insufficient quality, poor processing

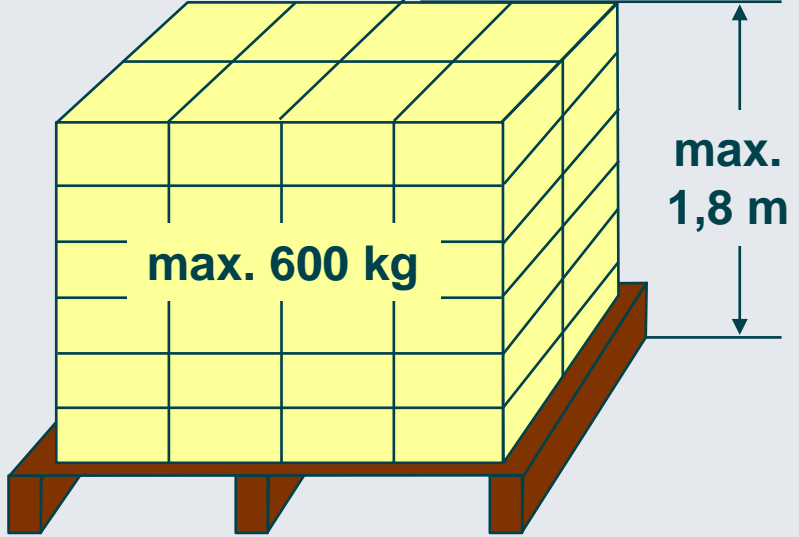


Load too heavy: pallet bends



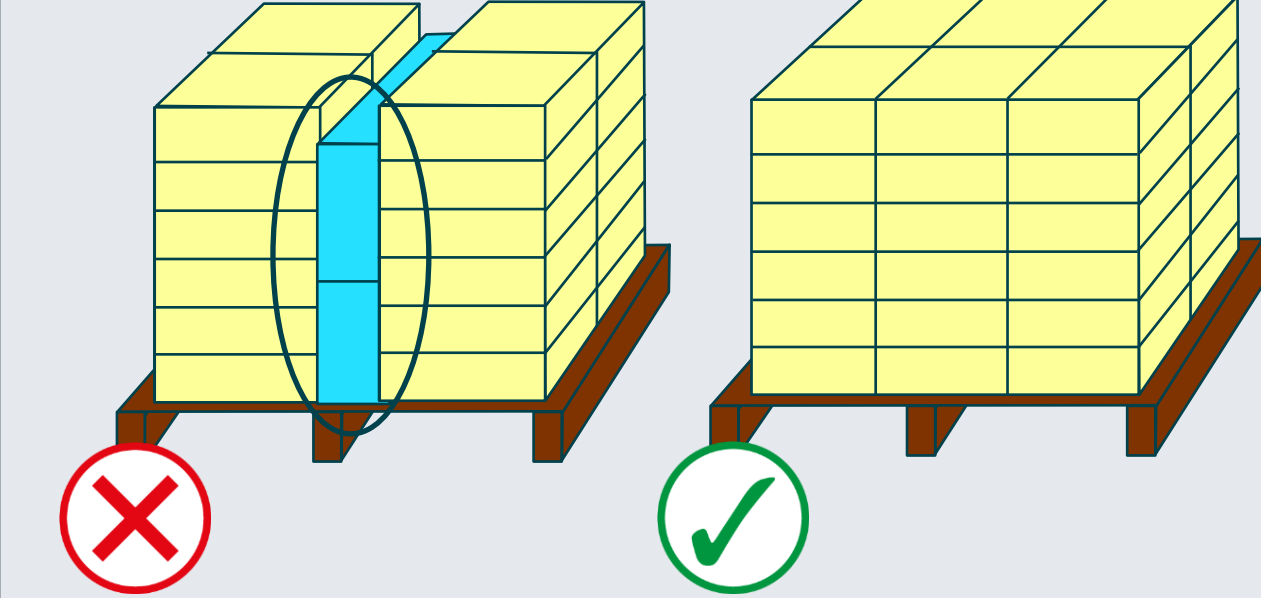
Insufficient quality, poor processing (e.g. pallet feet glued from single wooden plates or chipboard)

Standards for pallets: Restriction of height, weight and layers



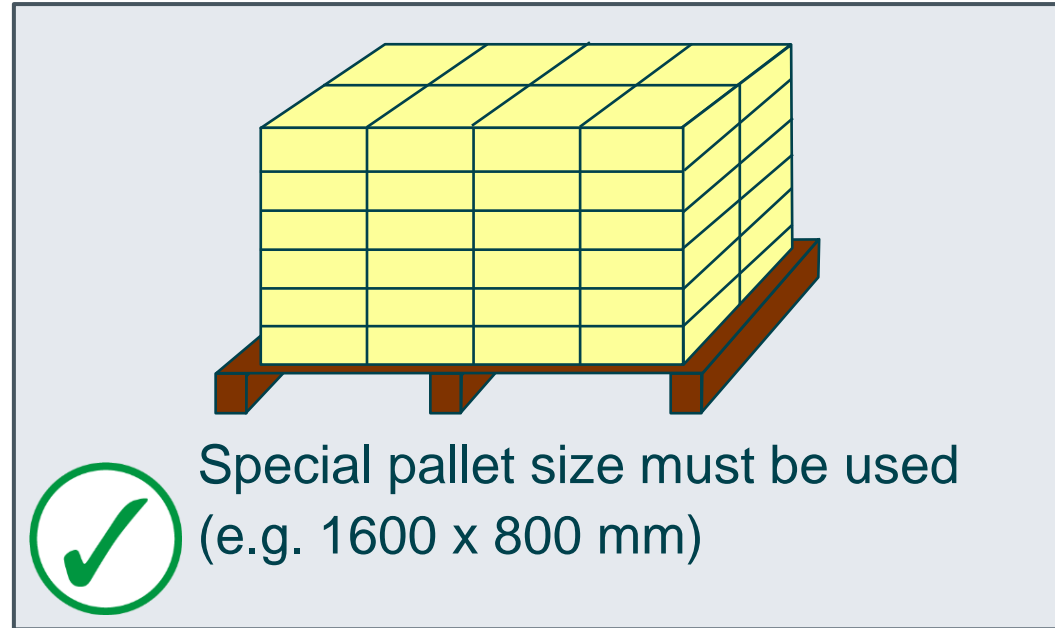
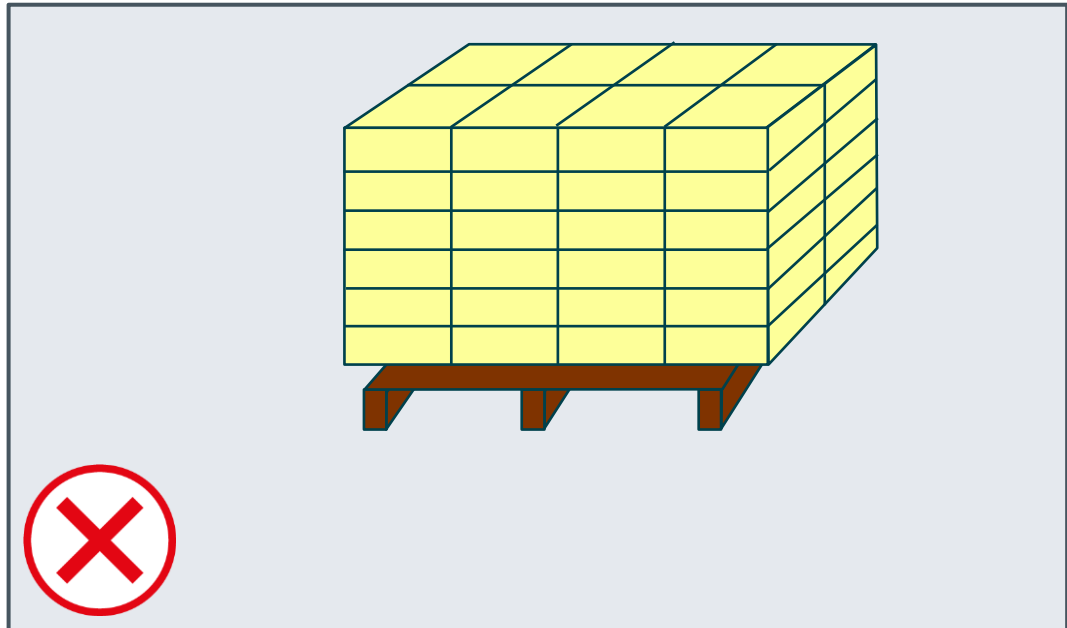
Pallet height: max. 1,8 m
Exceptions: See sea freight
Customer or plant request

Pallet weight: max. 600 kg
Exception: Customer request



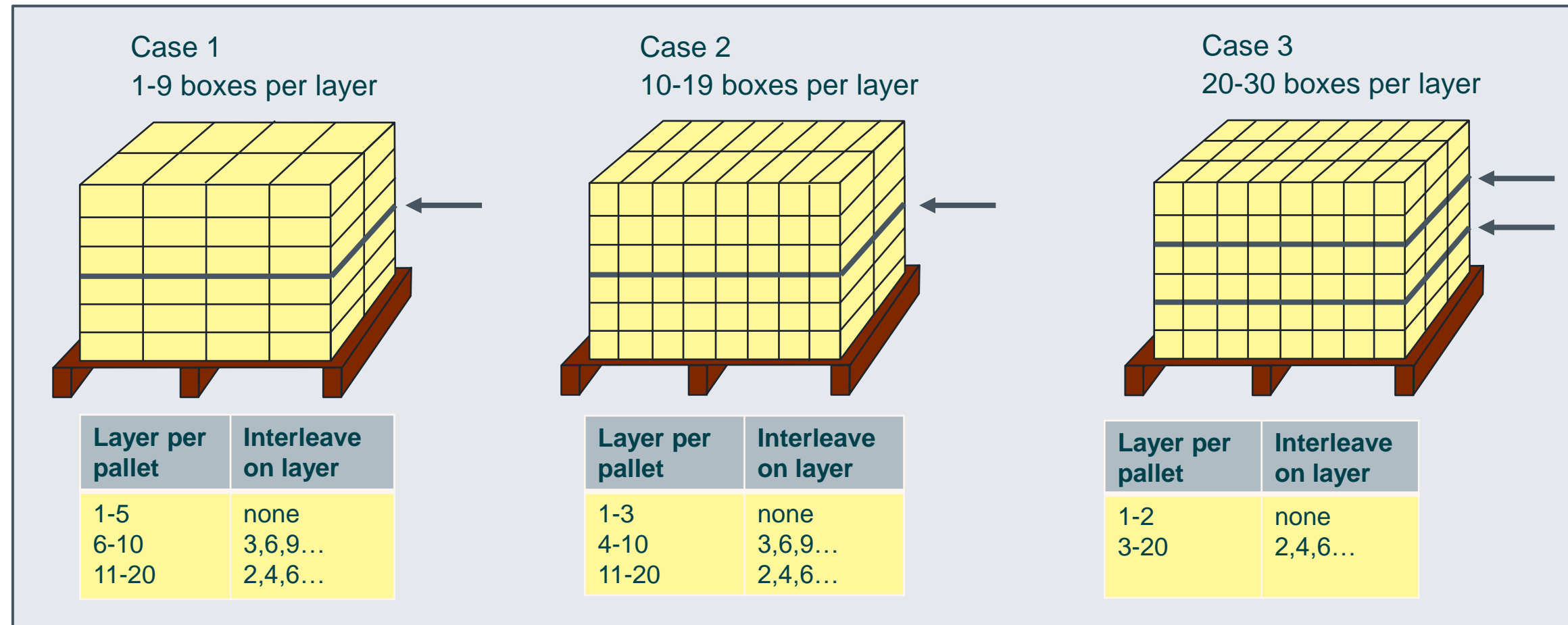
Layers must have same height and same quantity of boxes. For

Excess length: NO excess length allowed



Interleaves

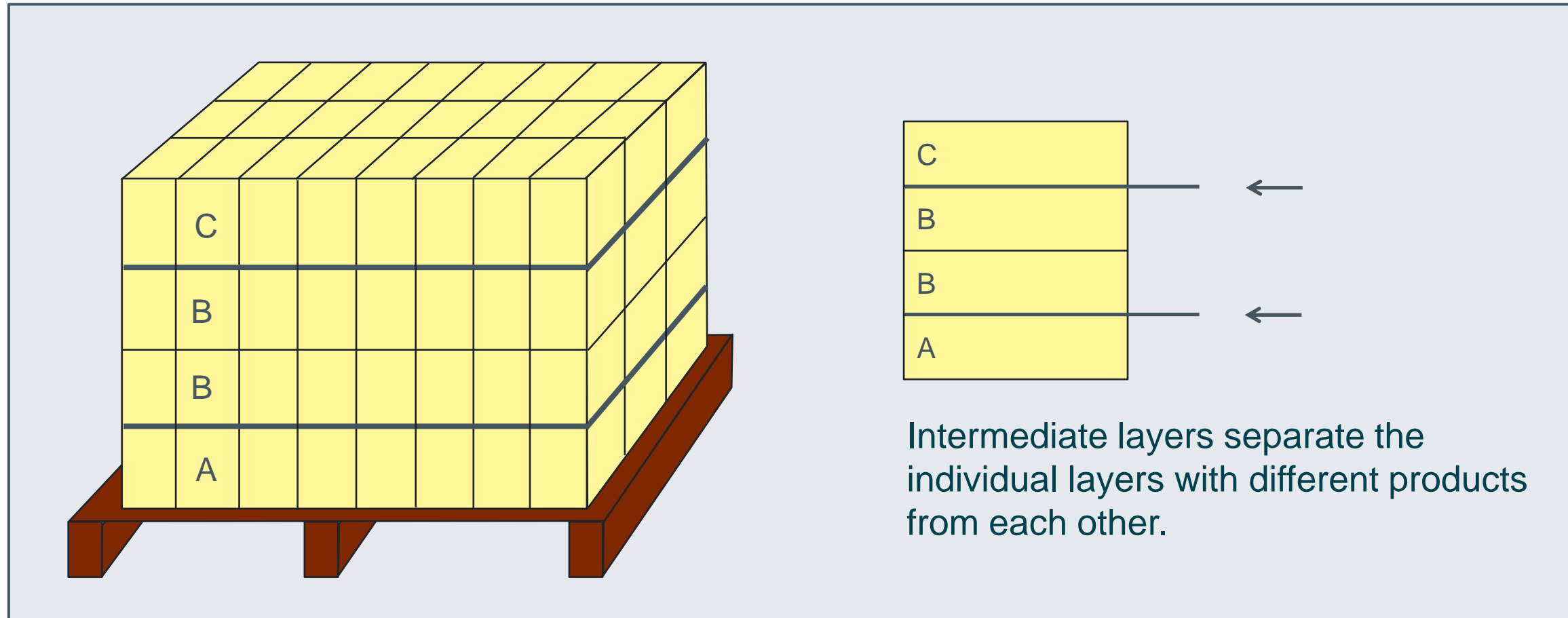
Craft paper interleaves are required as following:



The use of craft paper interleaves increase the stability of a load unit. For details pls check the related ZLP-document.

Interleaves

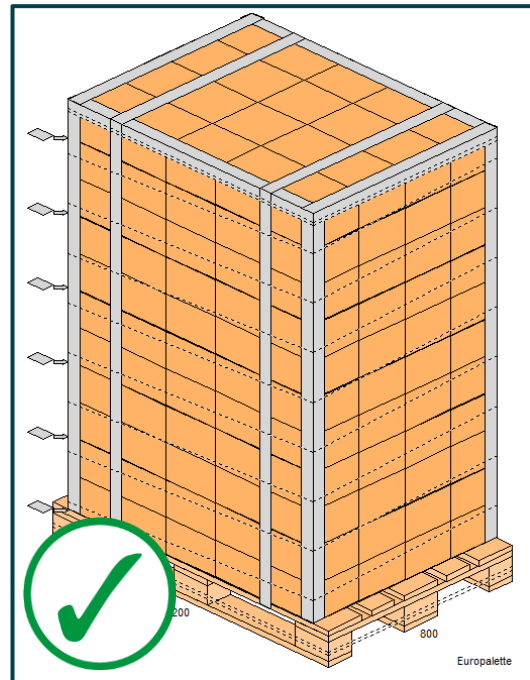
Craft paper for change of article per layer.



Intermediate layers separate the individual layers with different products from each other.

Securing the pallet load: Strapping

Edge protection should be used.



The load must be secured so that the packaged goods cannot slip off the pallet.

Minimum 2 straps are needed. Boxes incl. pallet have to be connected.

Edge protection prevents the individual boxes from being damaged. If boxes can be easily damaged, edge protection on 4 vertical edges and 4 horizontal edges on top are preferred.

Securing the pallet load: Strapping

Slipping must be prevented.



Adjust the tension of the straps accordingly: not too tight (leads to damage), not too loose (no fixation).
Don't strap single cartons.

Securing the pallet load: Wrapping

Transparent stretch film over pallet.



In addition to strapping, the pallet can be wrapped with film to increase the fixation of the packaged goods. The film must be attached to the base of the panel and partially wrap around the pallet. If appropriate, edge protection - from bottom to the top - must be used. As an alternative to the film, corrugated cardboard inverts or master cartons are also permitted. Don't wrap (single) boxes.

DON'Ts



Apply edge protection over entire pallet height (and width) – not only partially.

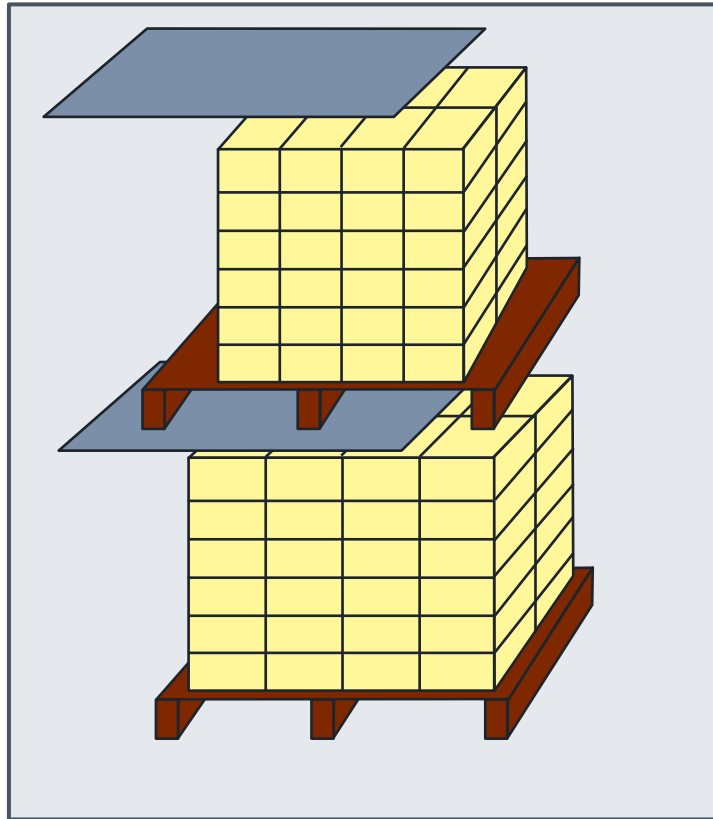


No customized foil without approval from Inventronics GmbH.



No loose goods on the pallet, all goods must be packed in carton.

Stackable pallets



Standard interleave = heavy-duty cover (min. 3-layer corrugated cardboard).

Size of the cover has to correspond to the surface of the pallet.

Preferably, pallets of equal weight should be stacked.

If this is not possible, the *heavier pallet* must always be placed **at the bottom**.



The material qualities and palletizing instructions specified by Inventronics GmbH generally allow pallets to be stacked twice. The exact conditions, such as the maximum height, depend on the further transport - see the corresponding following chapters. In case of a possible risk in double-stacking, please contact Inventronics GmbH.

Palletizing

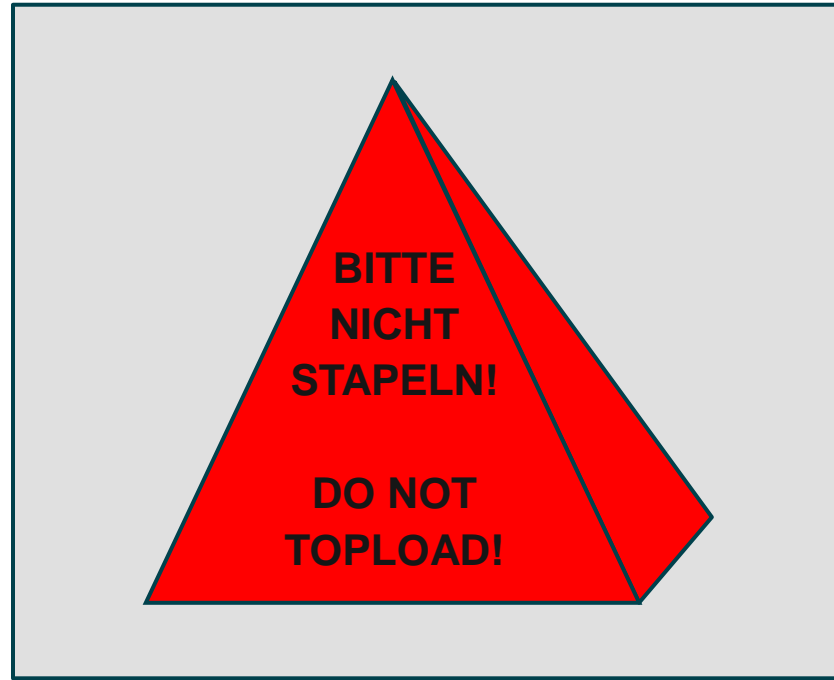
Stackable pallets



Wooden plates or layers of corrugated cardboard should be used between pallets.

To ensure balancing of weight and avoid damaging, a wooden plate or heavy-duty corrugated cardboard (min. 3-layer) has to be used for stacking pallets. Two pallets have to be strapped together (see *Container loading*).

Non-stackable pallets must be marked



Label must be added on two opposite sides of the pallet. Attach to the load unit – not on boxes.

Loading

Truck

Container loading for rail freight / sea freight

Air freight

Loading

Truck Loading: Vehicles, that can only be unloaded from a loading ramp



Pallet delivery only with fork lifter.



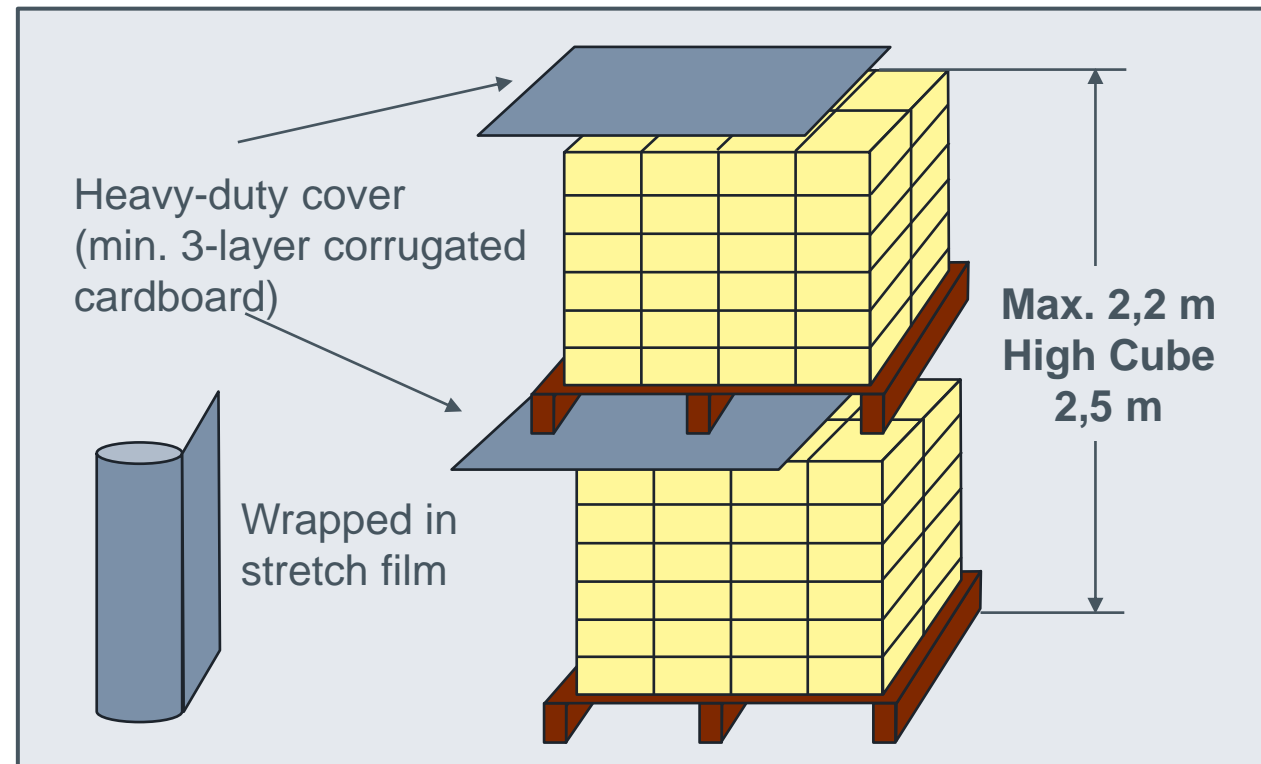
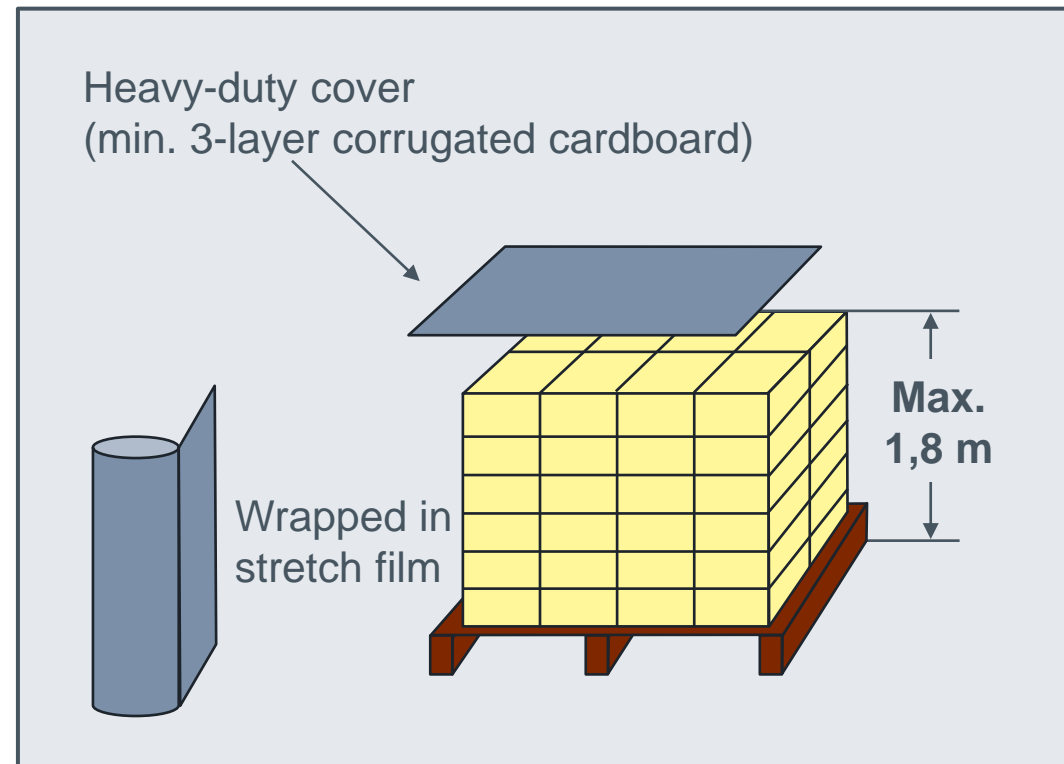
No vans or other small vehicles.



No lateral unloading.

Container loading: Preparation of the pallets for container loading

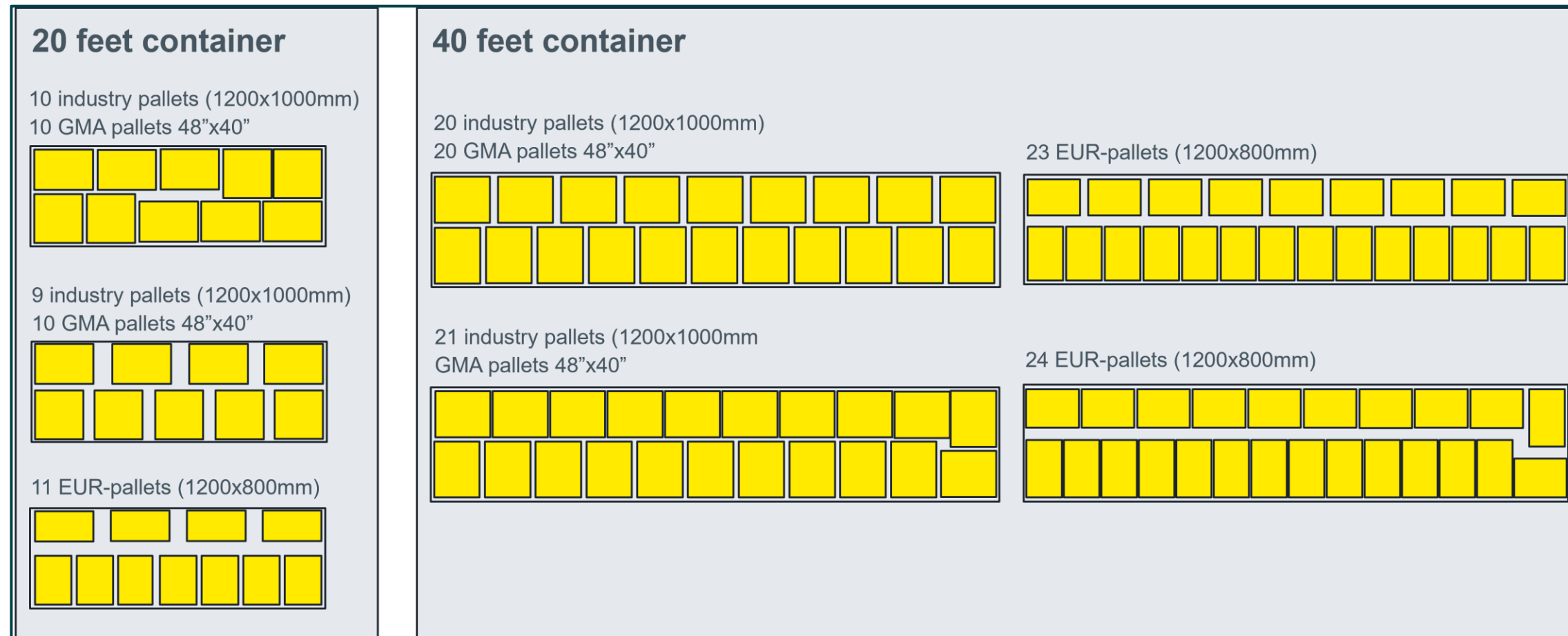
Pallet height max. 1,8 m – pallet weight max. 600 kg



The pallets must be - unless there are customer-specific requirements - stiffened by edge protection, finished with a cover and stretch-wrapped for load stability and moisture protection. In addition, strapping is also permitted (see *Palletizing*).

Container loading: Variants of loading with pallets

The loadings inside containers must always be on pallets.



Pallet type must be chosen according container size. Mixing of different pallet dimensions within one container is possible.

Container loading: No loose boxes in container

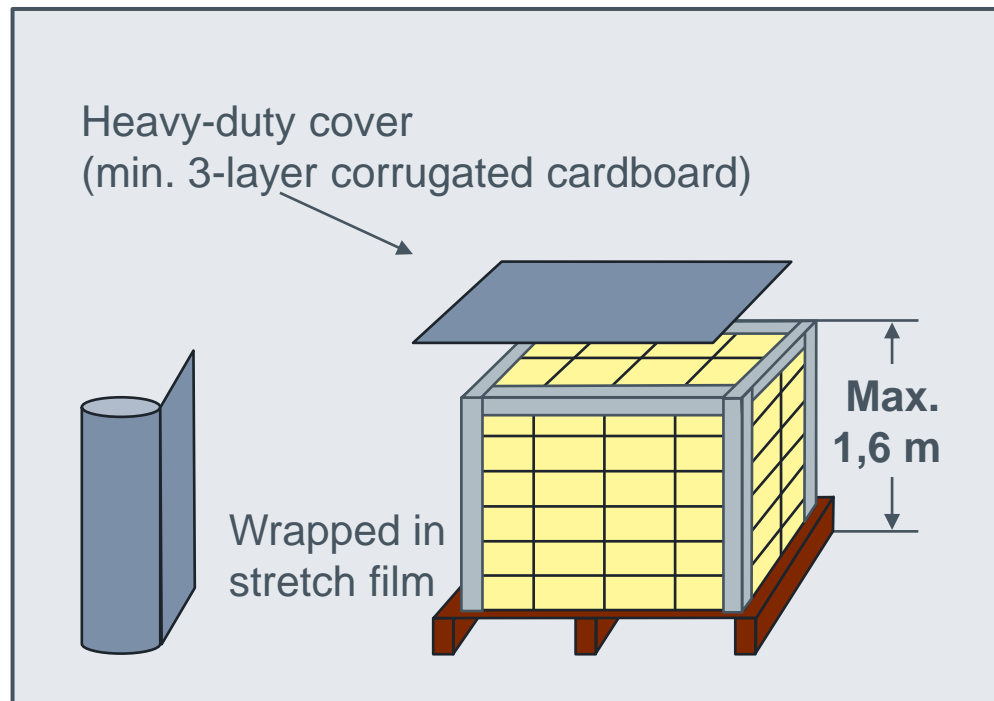
All shipments must be palletized and secured.



In case of larger empty space in between boxes on pallets or between boxes and container walls, this space must be secured by using pallets or air cushions. Secure single pallets with belts in container.

Air freight: Shipping of goods by passenger aircraft

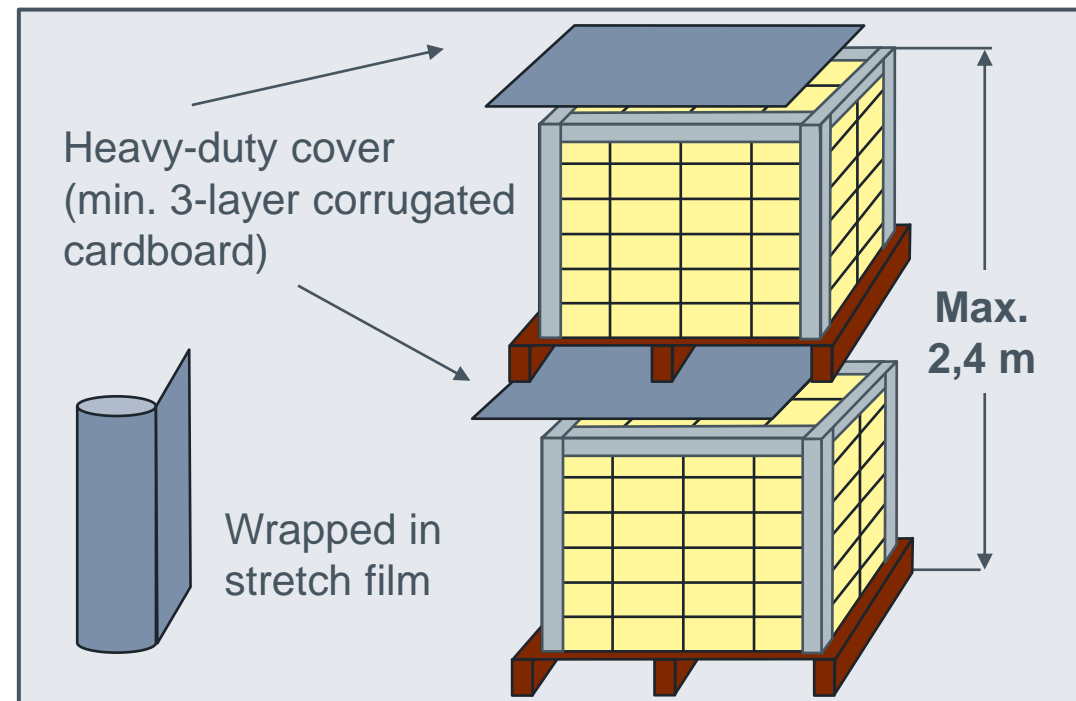
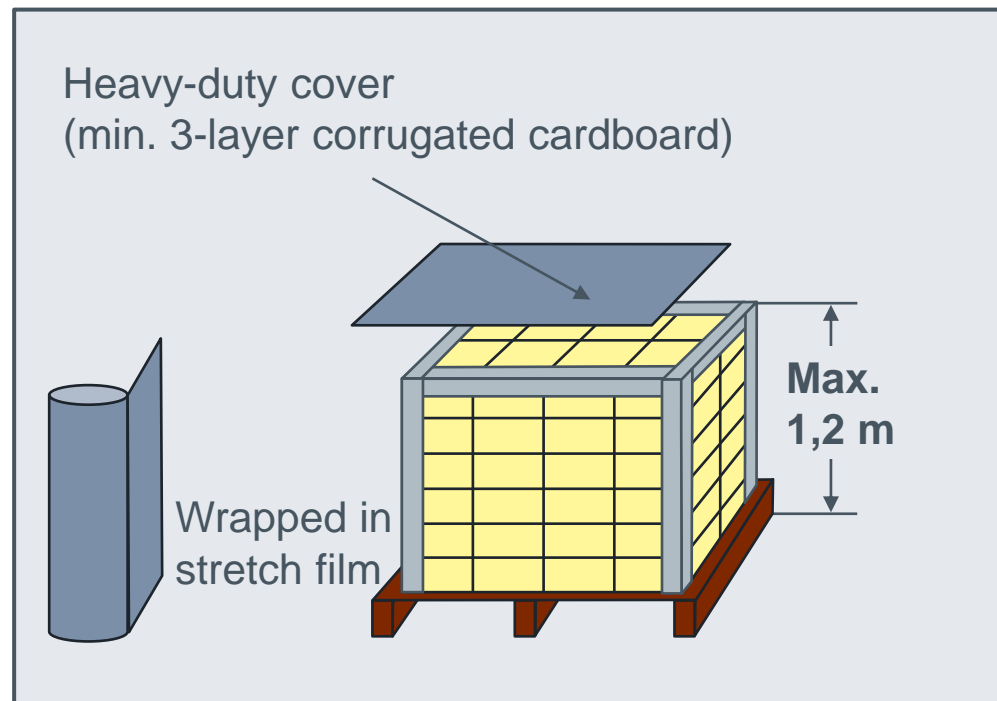
Shipping by passenger aircraft on pallets. Single boxes are also possible.



- Up to a maximum height of 1,6 m (including pallet).
- Covered with a heavy-duty corrugated cardboard and be stretch-wrapped for load stability and moisture protection.
- Use edge protection for better stiffness (on 4 vertical edges and 4 horizontal edges on top).
- In addition: strapped.

Air freight: Shipping of goods by cargo aircraft

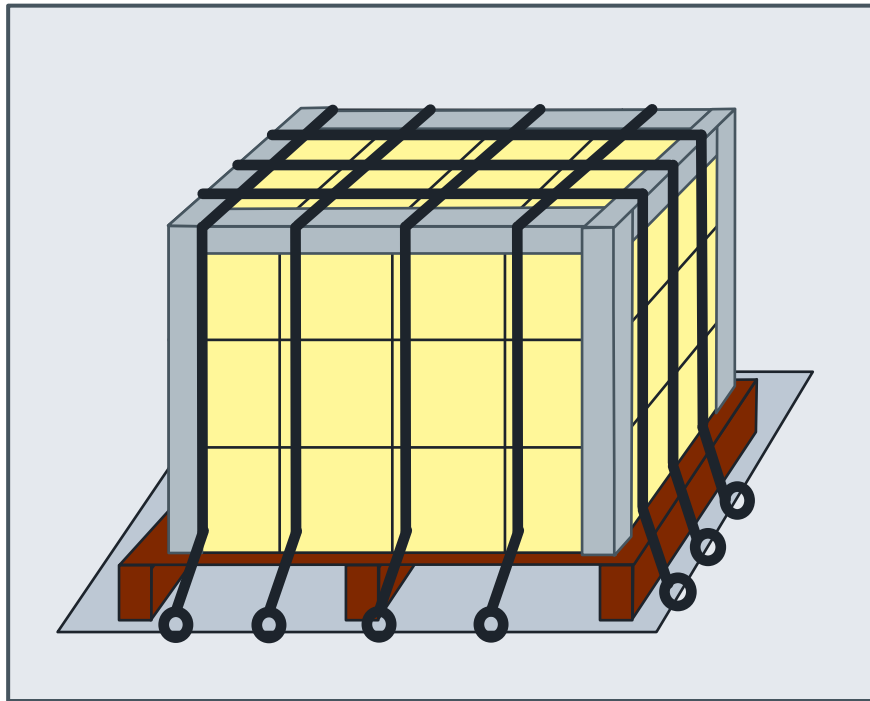
Shipping by cargo aircraft on single or double stacked pallets



- Up to a maximum height of 1,2 m (including pallet); in case of double stacking 2,4 m.
- Covered with a heavy-duty corrugated cardboard and be stretch-wrapped for load stability and moisture protection.
- Use edge protection for better stiffness (on 4 vertical edges and 4 horizontal edges on top).
- In addition: strapped.

Air freight: Shipping of goods

High safety standards of air freight

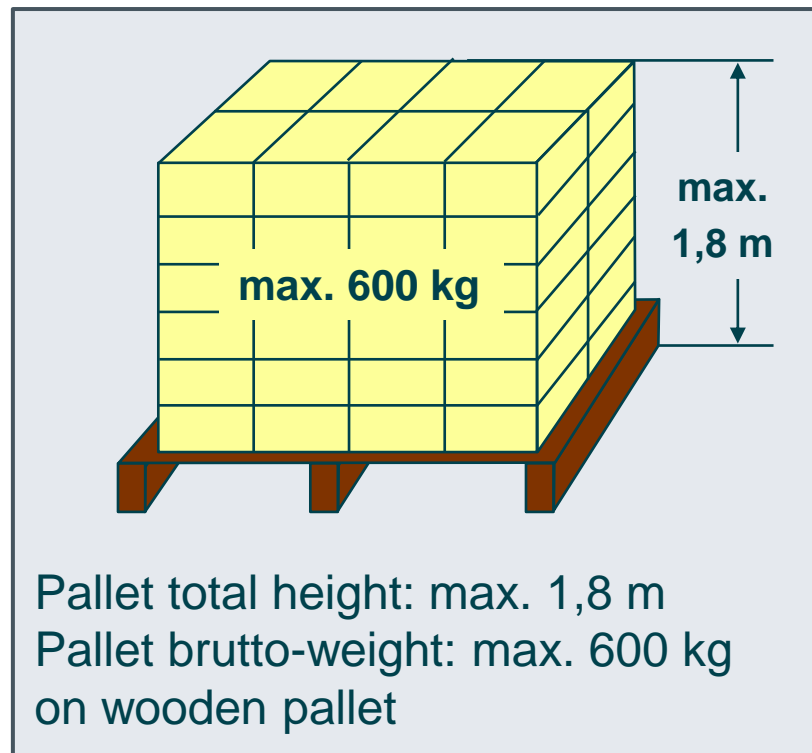


Please make sure that complete load unit has been adequately protected and packed for air freight. The top layers must be adequately protected by edge protection or cover from corrugated cardboard. Please note that at Air freight the pallets are covered by additional strong lashing of tie-down nets.

Storage in Warehouse

High-bay warehouse with shelving units

General requirements



The pallet can be stored in various storage locations in the high-bay warehouse. From level 2, the pallet only stands on two steel beams. A wooden pallet is required for this.

High-bay warehouse with shelving units

DON'Ts



If the weight of load is > 300 kg on a **chipboard/ plywood pallet**, safe storage is no longer guaranteed: the pallet bends. Additional reworking in warehouse is required.

The dimensions must fit to specifications, otherwise safe handling cannot be guaranteed.

Change History

Date	Version	Reason of change
March 2024	1.0	Initial creation

inventronics

Thank You

Packaging Coordination EURASIA

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