Packaging Specifications Guideline for Suppliers

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1. Objective

The shipping and packaging specifications apply as the standard for all suppliers worldwide. Our requirements, and the suppliers' responsibilities, are described with general validity in them. The requirements resulting from them offer an uncomplicated and practice-orientated guideline, therefore enabling a complaint-free flow of material between the supplier and KNDS Deutschland GmbH & Co. KG (referred to hereinafter as KNDS) and forming an important part of the delivery chain with stable processes.

2. Using the shipping and packaging specifications

The current version of the document is available from the KNDS website, Procurement section below Documents and Forms.

Violation of these specifications can have an impact on supplier evaluation, depending on the type, scope and repetition of the deviation. The details in our purchase orders must always be observed in terms of the delivery address and invoicing address

The version of the Shipping and Packaging Specifications referenced in the purchase order and/or contract is authoritative. Changes with an impact on costs or deadlines must be agreed upon with KNDS prior to implementation.

The supplier must ensure that the requirements of these specifications are also adhered to by its subcontractors, packaging contractors and other agents wherever they are tasked with packaging or shipping goods to be delivered to KNDS.

KNDS reserves the right to agree article-specific shipping and packaging specifications with the supplier. Any impact on costs or deadlines must be agreed upon with KNDS prior to implementation.

In case of conflicting requirements, the purchase order and/or article-specific specifications take priority. In all other respects, the contractually agreed-upon documents apply in the order of precedence specified there.
All packaging, and the processes relating to it, must comply with valid legal and regulatory requirements. This specifically includes national and international regulations relating to product safety, environmental and disposal regulations, provisions relating to hazardous goods and material-specific requirements. The supplier is responsible for seeking information on the currently applicable legal requirements and ensuring compliance with them at all times.

3. Packaging

3.1 General packaging requirements

All packaging materials used must comply with the European Packaging Regulation – (EU) 2025/40 ("Packaging and Packaging Waste Regulation" – PPWR). For all packaging delivered which falls under the scope of application of (EU) Regulation 2025/40 (PPWR), the supplier must ensure that the requirements of the regulation are met. In particular, the required conformity evaluation, as per Article 38, the technical documentation as per Annex VII and the EU Declaration of Conformity as per Article 39 must be authored and kept up to date in line with legal requirements by the economic entity responsible in each case. On request, the supplier must provide the purchaser with the valid EU Declaration of Conformity and the matching technical documentation in electronic form without delay but at the latest within ten (10) working days. Changes to the packaging, packaging material or implementation of the packaging capable of having an impact on conformity must be disclosed to the purchaser without delay. In these cases, the documentation in question must be appropriately updated and delivered again on request.

The packaging must be recycling-capable.

- Composite materials: In justified individual cases and for technical reasons, if deviating packaging materials are required, this must be disclosed to and agreed with KNDS in advance. The applicable legal requirements must be complied with in all cases.
- Plastic pallets must exclusively consist of PE (polyethylene), PP (polypropylene) or PET (polyethylene terephthalate). PVC (polyvinyl chloride) is impermissible
- Shrink and stretch films must consist of PE (polyethylene)
- Bags and sacks made of film must consist of PE (polyethylene)
- Paper and cardboard must be of materials harmful to paper production
- Polystyrene chips are impermissible
- Filling materials must exclusively consist of corrugated cardboard, paper or bubble wrap
- Only plastic straps made of PP (polypropylene) and PET (polyethylene terephthalate) may be used for strapping
- The use of metal straps for strapping is only permissible in exceptional cases
- If wood is used as a packaging material for goods from third countries, the IPPC standard must be applied

The selected packaging must meet the requirements of the goods to be packed; it must be sufficient for the loads caused by the intended means of transport. This means that the transport route and means of transport, and potentially contributing factors, such as the influence of weather and handling during reloading, must be taken into account as a mandatory requirement.

The shipping packaging must adequately secure the packaging and load units during transport, handling and storage. To ensure quality-compliant delivery of parts, at least the following items must be complied with:

- The parts must be free from contamination of any nature. (In particular, residues of peening media or metal chips which could start to rust)
- The packaging must reliably protect the parts against mechanical damage, soiling and corrosion damage.
- Due to the greater risk of injury, cartons must not be sealed using metal clamps but with adhesive tape where possible.

- In case of complete packaging with film, the risk of water accumulations must be prevented.

For components which have special requirements, for example due to their properties or the transport method, and therefore require a more detailed specification of the packaging – and/or a deviation from these specifications – individual packaging specifications must be agreed between the supplier and KNDS.

The document template defined by KNDS must be used for this. The supplier must document the proposed packaging, and must this send this to KNDS for release.

3.2 Additional instructions for painted components

- Damage due to impact/chafing between individual components must be prevented; in other words, intermediate layers and buffer material, for example, must be used between the components.
- Paint chipping on edges must be prevented by suitable countermeasures, e.g., fitting edge protection.
- If material is protected by tarpaulins, chafing of the coating must be prevented by padding, especially at the edges.
- Because the surface protection is still incomplete, primed components must be protected just like non-coated parts, however, they must also be protected against paint damage.

3.3 Additional instructions for electronic components

When electronic components are shipped, electrostatic discharge, commonly known as an "electric shock" ("ESD" = electrostatic discharge) can cause irreversible damage to the goods. Sensitive electronic goods being transported must therefore be protected inside the packaging by the use of antistatic packaging material, or by electrostatic packaging as per the DIN EN 61340-5-3 standard (three categories: Conductive (C), Dissipative (D) and Shielding (S)) to avoid electrostatic charge. Packaging of this type must not be opened until it reaches the production line and must be marked accordingly by the manufacturer.

Additional protection against mechanical load must be provided by shock-absorbing, antistatic, conductive bubble wrap or by bubble wrap foam packaging. Exposed cables, wiring harnesses and plugs must be protected against the ingress of moisture, wire break and other damage. Cables and plugs must be sustainably fastened to the assembly during transport and storage. Kinking of cables and chafing of cables or plugs over the substrate must be prevented during transport. Loading aids must be selected to meet these criteria.

3.4 Additional instructions for sensitive parts

Packaged goods which are particularly sensitive to mechanical load are frequently transported, control cabinets for example; they require protection by padding materials against the effect of knocks, shaking, vibrations and pressure. Padding materials also serve to protect film sleeves when the desiccant and VCI method is used. To prevent the film chafing through/being punctured, all packaged parts with sharp edges and corners which come into contact with the film hood are covered by padding.

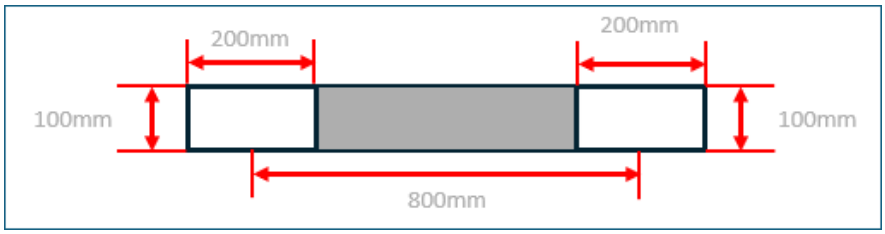
3.5 Additional instructions for fixing moving parts in place

Moving parts are marked by the supplier so that they can then be fixed in place by lashing, chocking or padding.

3.6 Load carriers

Where needed and meaningful due to their nature, size and weight, packaging units must be designed to be loadable by forklift or crane.

Each load carrier must have forklift pockets with the following dimensions.



KNDS accepts the following load carriers.

EPAL mesh box 1240x835x1000 mm		Max. 1000 kg	Reusable
Half-size mesh boxes 1240x835x500 mm		Max. 1000 kg	Disposable
EPAL Euro pallets 1200x800x155 mm (Item 3.7.4.)		Max. 1000 kg	Reusable
Extension frame for pallets			Reusable
Special load carriers		Up to 12 metric tons	Disposable/ Reusable
Industrial pallet (Item 3.7.4.)		Max. 1000 kg	Disposable

KNDS reserves the right to specify purchase orders in which – following prior consultation – various components or system parts must be packed in devices specially designed for them, such as steel frames, wooden crates or other special load carriers.

Prior to procurement or manufacturer of a special load carrier, a written release must be secured from the appropriate Procurement office. Any additional costs must be disclosed in advance and also require a written release. Without a prior release, claims for reimbursement of additional costs cannot be accepted. Loose parts in a consignment must be packed separately (bags or boxes inside the packaging unit). The main focus must be on being able to ensure safe transport. In the case of reusable and special load carriers, cost allocation and exchanging, if applicable, must be agreed upon between the supplier and KNDS before the first delivery. If reusable load carriers (Euro pallets, Euro mesh boxes) reach KNDS in damaged condition, they will not be exchanged! KNDS reserves the right to accept or reject damaged load carriers.

3.7 Auxiliary packaging materials

Auxiliary packaging materials means all packaging media which can be used to secure (against slipping in all directions and the damage caused by this) and stack components or system parts. The following auxiliary packaging materials will be accepted:

3.7.1 Intermediate layers made of wood

Intermediate layers made of wood prevent direct contact between parts, ensuring protection against slipping and surface damage. For deliveries with a net weight above 50 kg (in particular steel components/steel plates) intermediate layers must be used as a mandatory requirement.

3.7.2 Intermediate layers made of wood for tensioning straps

The goods on the selected load carrier must be protected against slipping. Tensioning straps made of plastic must be used to lash the materials. They must not run (under the feet of the packaging unit) under the pallet.

In addition to the wooden underlays, edge protection corner pieces made of plastic must be used to prevent chafing on (sharp) edges. Tensioning straps must not come loose during transport.

3.7.3 Tensioning straps and edge protection

Tensioning straps (to secure the materials against slipping in all directions) must be padded using wooden underlays. The wooden underlays absorb and uniformly distribute the pressure which occurs during lashing. The tensioning straps must not lie directly on the surface of the materials as the pressure occurring during tensioning could cause damage (bending, surface damage). Wooden inserts must be attached to the sides in upright orientation and above the goods.

3.7.4 Packaging sequence / Size of the load carrier

All materials must be packed sorted in ascending order (that is, large/heavy parts at the bottom, small/lightweight parts at the top). The size of the load carrier must be selected such that no part of the goods protrudes at the sides; in other words, the load carrier must be larger than the length and width of the goods. Also, where mesh boxes are used, it must be ensure that the load does not protrude beyond the stacking edge of the mesh box, thus restricting the stackability of the mesh box. The load carrier must be large enough to centre the material's centre of gravity at the middle of the load carrier

3.7.5 Protection against environmental influences

For packaging units of all types, it is essential to take sufficient care to protect the components or system parts on the inside against corrosion (blank parts in particular) and soiling due to environmental influences such as rain or splash water. This can be ensured by wrapping the packaging unit in stretch or packaging film. The film may only be attached to the side surfaces and above the goods so that air can continue to circulate underneath the film and condensate on the inside is prevented.

3.7.6 Compensating for height differences

Where materials are stacked on a load carrier, and height differences occur in the spaces in-between, the spaces must be compensated for using wood/other stacking aids such that they are stored horizontally on the load carrier. This prevents the packaging unit tipping during transport.

3.7.7 Centre of gravity

The supplier must design the packaging such that the material, when ready for shipping, cannot tip over during loading and unloading.

To ensure safe load distribution, it must be ensured that the centre of gravity of the packaging unit is as low and centric as possible. If uniform weight distribution is not possible throughout, the centre of gravity of the packaging unit must be unambiguously marked.

4. Marking

4.1 Necessity

To enable fast and easy identification, that is, fast processing of the materials in the incoming goods process, the goods must be packaged by type and unambiguously marked. Where stickers cannot be attached directly to components due to the nature of their material, the supplier must submit proposals on how to label the material.

The marking of the individual materials must include the following details to enable trouble-free intake by KNDS.

1. KNDS material number and drawing number (PNR)

4.2 Preconditions

Different articles, purchase order items, or manufacturing sets must be unambiguously identifiable and distinct from one another. Mixed packages are permissible if unambiguous assignment is ensured and no specifications to the contrary exist, especially for the delivery of sets. This can be achieved either using bags, boxes or stacking by variety (with intermediate layers or stretch film).

4.3 Aids

To mark the articles in a consignment, adhesive labels or pendant tags with wire loops must be attached to the parts/packaging. It must be possible to remove adhesive labels from the surface of the parts with ease and without residues.

4.4 Labelling and position

The labelling of the delivered materials must be unambiguous and easily legible. The correct KNDS article number and PNR number must be stated as a mandatory requirement. The labelling position of the components must be selected such that it can be immediately detected in lashed condition (for larger components); in other words, the label must be attached to the outer area of the parts.

5. Accompanying documents

5.1 Delivery note / Packing list

To be able to check and document a consignment, a delivery note and packing list must be included with it. For consignments consisting of multiple packaging units, unambiguous assignment of the contents must be ensured. One packing list per packaging unit is only required if this is necessary for unambiguous assignment, or is requested by KNDS.

5.2 Customs documents (for non-EU deliveries)

The following documentation is required:

- Commercial invoice, or customs invoice (in case of free delivery)
- Original proofs of preferential origin (for countries of origin with an EU agreement, such as, ATR, EUR.1)

5.3 Documents in accordance with Quality Assurance Code

The delivery documentation required in accordance with the QSB code, must be available on arrival of the goods at the latest. The documentation must be submitted as specified by QS-0002 and QSV-1 (or QSV-2, if agreed).

5.4 Aids

The accompanying documents must be directly attached to the packaging units and easily removable. The use of a delivery note or packing list pouches.

Example:



5.5 Delivery note content

The details on the delivery note must fully match the delivered goods. When delivering goods subject to automatic identification technology rules, the GTIN code must be printed on the delivery note as a GS1 data matrix (text form is not permitted).

If multiple materials with GTIN codes are delivered in a consignment, then the codes must be enclosed on a separate sheet as an annex to the delivery note. This sheet must additionally reference the appropriate KNDS purchase order number and KNDS purchase order item number.

Examples of GTIN codes (GS1 data matrix format)



The following details are mandatory on the delivery note:

1. Your delivery note no.
2. KNDS purchase order number
3. KNDS purchase order item number
4. KNDS material number and drawing number (PNR)
5. KNDS article designation
6. Batch and / or serial numbers
7. Total quantity delivered for each delivery note
8. Unit (items, m², etc.)
9. Delivery address (matching the details in the purchase order)
10. Type and number of individual load carriers/packaging units
11. If required: Note from ESD guidelines (for electronic components)
12. If required in the purchase order: Use-before date / Date of manufacture of the material

5.6 Packing list content

For consignments consisting of multiple packaging units, unambiguous assignment of the contents must be ensured. One packing list per packaging unit is only required if this is necessary for unambiguous assignment, or is requested by KNDS.

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Examples of GTIN codes (GS1 data matrix format)



The following details are mandatory on the packing list:

1 Your packing list no.

2 KNDS purchase order number for each packaging unit

3 KNDS purchase order item number for each packaging unit

4 Quantity delivered for each packaging unit

5 Unit (items, m², etc.)

6 KNDS material number and drawing number (PNR) for each packaging unit

7 KNDS article designation for each packaging unit

8 Batch and / or serial numbers