

Packaging Handbook for Suppliers



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1. Information and Communication

1.1 Aim of the manual

This manual is intended to inform suppliers about existing guidelines and regulations for packaging planning. The aim is to ensure that quality packaging is bindingly in order to achieve a trouble-free supply process.

1.2 General conditions and binding nature

The following document applies as a supplementary agreement to the framework agreement / to the conditions of purchase.

In the event of non-compliance with the agreed packaging, Schaeffler reserves the right to charge the supplier with the repackaging costs plus the handling costs incurred.

1.3 Scope of application

This document is valid for series deliveries to all Schaeffler locations.

The packaging manual is valid for:

- Purchased parts
- Subcontracted and externally processed parts
- Trading goods

It does not apply, for example, to:

- Steel and wire coils
- Raw materials
- Auxiliary and operating materials

1.4. Explanation of terms

- **DIN:** German Institute for Standardization
- **EPA:** Electrostatic Protected Area / ESD protected area
- **ESD:** Electrostatic Discharge
- **ESDS:** Electrostatic Discharge Sensitive Device
- **ISPM:** International Standard for Plant Protection Measures
- **KLT:** Small load carrier
- **Mixed pallet:** Load unit or a transport unit in which different product packaging (more than one material number) are transported.
- **NON-ESDS:** Non-electrostatically sensitive device
- **SupplyOn:** Internet platform for suppliers
- **TCO:** Total Cost of Ownership / Total Operating Costs
- **VDE:** Association for Electrical, Electronic & Information Technologies
- **Counting aids:** Counting aids are not saleable packing units, but merely a bundling of identical, packaged products to aid in logis-tical handling and handling assistance for small individual boxes.

2. Packaging reconciliation process

The supplier is responsible for damage-free parts delivery. For this purpose suitable packaging must be agreed between Schaeffler and the supplier.

This process is divided into the following two steps.

2.1 Inquiry by Purchasing

With the request by the purchasing department, the supplier receives a draft packaging data sheet. This must be checked by the supplier, completed if necessary (e.g. packing quantity) and returned to Purchasing with the quotation.

In addition to the draft packaging data sheet, the supplier is free to offer alternative packaging.

2.2 Formal packaging agreement

After nomination of the supplier, the supplier will be provided with the final packaging data sheet via Supply-On, made available to the supplier. The packaging data sheet shall be counter-checked within 14 calendar days, to confirm or, if necessary, to object. If no feedback or objection is received within this period, the packaging data sheet shall be deemed to have been accepted and shall thus be binding.

3. Packaging requirements

3.1 General requirements

When designing packaging, requirements regarding quality and security of supply as well as economic, ergonomic and ecological criteria must be taken into account.

The packaging must not pose any danger to persons (e.g. due to protruding nails). To ensure quality delivery of the components, they must be free of damage, corrosion and contamination in accordance with drawing requirements and the applicable specifications.

3.2 Cleanliness

When designing the packaging, it must be ensured that the components are packed in accordance with their cleaning class in the drawing and are protected from contamination along the entire supply chain.

3.3 Corrosion protection

Components at risk of corrosion must be protected by the supplier by suitable measures and taking into account from corrosion by means of suitable measures and taking into account climatic influences during transport and storage. The possible climatic influences occurring over the entire supply chain are to be taken into account when conditions customary in the industry must be taken into account when designing the corrosion protection.

3.4 ESD

When designing packaging for electrostatic sensitive parts (ESDS), it must be ensured that ESD requirements and that they are protected throughout the entire supply chain.

The existing IEC 61340-5-3 standard must be observed.

4. Packaging Design

4.1 Permissible packaging materials

Only qualitatively suitable and recyclable packaging materials may be used for the respective application, which are marked with standardized or recognized by the waste disposal industry. The Schaeffler standard “Prohibited and declarable substances” S 132030-1 must be observed.

Material / packaging materials	Permissible materials
plastic: foils, bags and sacks <ul style="list-style-type: none"> • without VCI or ESD equipment • with VCI and / or ESD equipment 	<ul style="list-style-type: none"> • only transparent PE • transparent or colored PE
Other plastic packaging materials	PE, PP, PS, PET
Strapping	PP, PET
Adhesive tape	Transparent
Corrosion protection paper	Only VCI paper that can be demonstrably recycled together with paper / cardboard can be recycled.
Wood	Solid wood (only with HT treatment according to ISPM 15 with IPPC stamp), plywood, chipboard, OSB, hardboard
Filling material	Padding made of corrugated cardboard or paper, Bubble wrap

All materials or packaging materials not listed under “permissible materials” are not permissible

4.2 Dimensions and weights

- In principle, large load carriers (e. g. pallets, skeleton containers) with dimensions of 1200mm × 800mm or 800 mm × 600 mm.
- Unless otherwise agreed, deliveries to the EDZ in Kitzingen must be made on a pallet of the size of 800 mm × 600 mm.
- The max. permissible total height of loading units is 1050 mm.
- As a maximum permissible total weight are to be provided:
 - 1000 kg for GLT 1200 mm × 800 mm
 - 500 kg for GLT 800 mm × 600 mm
 - 12 kg for KLT/boxes
- Supplier’s own disposable pallets are only permitted as a four-way variant.

4.3 One-way packaging

Boxes must always be lined with a plastic bag as inner packaging. The inner packaging must be designed in such a way that the contents can be completely and easily placed e. g. into a KLT.

Boxes must be sealed with adhesive tape as follows:

- Bottom and lid flaps continuous (minimum width of adhesive tape: 50 mm).
- Hinged-lid boxes on the three sides not connected to the lid, in the middle
- Slip lid boxes on all four sides, centered

The following applies to merchandise:

- Only Schaeffler branded or neutral packing and packing aids may be used.
- Boxes with edge length < 83 mm are packed in a counting aid.
- Slip lid boxes are to be strapped with PP strap depending on the dimension:
 - Smaller 200 mm edge length single centered
 - From 200 mm edge length crosswise centered

4.4 Returnable packaging

Only Schaeffler standard load carriers may be used for the design of reusable packaging. Special load carriers or supplier's own containers are only permissible in absolute exceptional cases and after consultation.

4.5 Formation of the shipping unit

Loading units are to be formed in accordance with the shipment volume and the type of shipment, that the quality of the purchased parts cannot be impaired packaging must be suitable for overseas shipping and permanent air leakage must be prevented.

Load units with several material numbers are only permissible if this procedure is agreed between the supplier and the recipient plant.

In the case of one-way loading units, the following must be observed:

- Stackability must be ensured at least 2-fold (1 + 1) without deformation and damage must be ensured.
- The permissible load must be marked on at least 2 sides.
- Empty spaces must be filled with suitable filling materials.
- Loose cartons on pallets must always be strapped with plastic straps and 4-fold with edge protectors or wrapped with stretch film. Shipment with boxes on pallets without outer cartons is not permissible for merchandise.
- If a pallet carton is used, it must be strapped at least 2 times with plastic strapping strapped.
- Wooden boxes < 510mm must be delivered secured on a pallet.

In the case of reusable loading units, the following must be observed:

- Stackability must be given. Empty positions in returnable containers must be filled with empty containers.
- Strapping with plastic strap for returnable containers or collars on pallet (2-fold) with pallet end lid parallel to the long side for 1200 × 800 and parallel to the narrow side for 800 × 600.
- Stretching / shrinking is only permissible after express agreement.

Please note for mixed loading units:

- Only pallets are permissible as load carriers, no large load carriers (e. g. mesh box).
- Different KLT and box sizes per pallet are permissible.
- Only KLT or boxes are permitted on a pallet.
- Heavy packages are to be packed on the bottom and light packages on the top of the pallet.
- Mixed pallets are to be avoided as far as possible.
- Identical material is to be packed as close as possible to each other within one layer, and in case of more than one layer, pack one on top of the other as far as possible.
- Identical material is to be distributed on as few layers and pallets as possible.

5. Packaging Management

5.1 Responsibilities of the supplier

The reusable packaging materials provided by Schaeffler

- may only be used for the supply of Schaeffler plants, not for internal production processes or for other purposes.
- must be handled or used carefully and properly.

The supplier shall bear the costs resulting from any loss or damage caused by him.

5.2 Procurement of packaging materials

5.2.1 Procurement of disposable packaging materials

Schaeffler-specific disposable packaging materials may be procured by the supplier at the supplier's expense following approval by the responsible packaging material purchasing department at Schaeffler packaging material suppliers or if necessary, for commercial goods, from Schaeffler packaging service providers.

5.2.2 Procurement of reusable packaging materials

Unless otherwise agreed, Schaeffler-specific reusable packaging materials shall be made available to the supplier by Schaeffler for a defined stock of products. For this purpose, the supplier shall receive, on the basis of future delivery call-offs, a circulating stock of 14 calendar days (including transit stocks). For internal production processes of the supplier reusable packaging materials to be provided by the supplier himself.

5.3 Circulating quantities

5.3.1 Schaeffler's own returnable packaging materials

The supplier shall receive specific reusable packaging materials from Schaeffler for a defined circulation stock on the basis of future delivery call-offs. The assumption of the costs is agreed with the supplier during the inquiry/quotation process.

5.3.2 Supplier's own reusable packaging materials

The required circulation quantity shall be agreed between the supplier and Schaeffler. The procurement of these reusable packaging materials shall be carried out by the supplier.

5.4 Operational handling

5.4.1 Returnable packaging account management

The basis for a trouble-free returnable packaging cycle is correct returnable packaging account management. Schaeffler carries out a system-supported management of returnable packaging materials. Decisive for the accounts kept by Schaeffler, which are maintained directly with the suppliers and are regularly reconciled with them.

Complaints must be reported to the responsible returnable packaging administration within 14 calendar days by submitting the relevant evidence. If no reconciliation is made within this period, the account balance shall be deemed to have been accepted and shall serve as the basis for a debit.

In order to reconcile the returnable packaging balance with the stocks actually held by the supplier, Schaeffler shall order a container inventory as required. The supplier is obligated to count the empties and must report his results on the due date. If the supplier does not submit an inventory report, the returnable packaging balance documented in the Schaeffler system on the inventory date shall apply.

5.4.2 Request for packaging materials

The supplier is responsible for requesting the packaging materials. The packaging materials provided by Schaeffler shall be requested by the supplier in good time from the responsible packaging material planners. The type and order lead time (latest date of the order) are to be agreed with the packaging materials planner responsible for the order.

5.4.3 Packaging material supply

Packing materials shall be supplied to the supplier by Schaeffler unless otherwise agreed other arrangements have been made. In the event of non-compliance with the order deadlines, the provision shall be at the expense of the supplier.

Upon receipt of goods, the supplier shall carry out a quantity, identification and visual inspection. In the course of this defects are to be reported to the responsible packaging materials planner, stating the delivery bill, a photographic and a short description to the responsible packaging material planner. The further procedure is to be coordinated with the packaging materials planner on a case-by-case basis.

5.4.4 Storage and cleaning

After taking over the packaging material from the carrier, the supplier is responsible for proper storage and cleaning, protected from the effects of the weather.

All reusable packaging materials must not be additionally labeled, pasted, misused or unnecessarily soiled. Old markings must be removed or cancelled. Reusable packaging materials shall always be made available to the supplier "broom-clean". The supplier's own reusable packaging must be cleaned by the supplier if necessary.

5.5 Return of packaging

In the case of packaging that is no longer would like or is damaged, the procedure to be followed in this regard is to be coordinated with the packaging management. Unauthorized return and disposal are not permitted.