STD0308

KTM PACKAGING SPECIFICATION PART 1

SERIAL ARTICLES INCL. SAMPLES & PROTOTYPES

READY TO RACE

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1. General Information

The KTM packaging specification is a supplementary agreement to the general purchasing conditions (PCS) and consists of two parts. Part 1 of the regulation applies to all articles assigned to serial production, including samples and prototypes. Packaging requirements for spare parts, garments, and accessories (PG&A) are specified in part 2 of the regulation.

The KTM packaging specification is intended to support packaging planning and development. It outlines the requirements that KTM places on its suppliers to ensure an efficient flow of materials and information. These requirements must be strictly followed by suppliers when designing packaging, labeling, and preparing shipping documents.

1.1 Applicable Documents

The following additional documents are relevant and binding for the supplier:

- Respective Purchasing conditions (PCS) and Quality assurance agreements (QSV)
- KTM Packaging specification part 2 (STD0310)
- KTM Packaging data sheet (FB0524)
- KTM Empties request form (FB0517)

1.2 Scope & Delivery Adresses

The area of application for part 1 of the packaging specification includes deliveries to all production sites or plants of KTM. Table 1 shows their addresses, including the maximum limits for weight and height of the loading units.

Table 1: KTM delivery addresses incl. maximum weight and height of the delivery units

Delivery address	Plant / Division	Billing address	Max. weight of delivery unit	Height of delivery unit
KTM AG Stallhofnerstrasse 3 AT-5230 Mattighofen	Vehicle Assembly	KTM AG Stallhofnerstrasse 3 AT-5230 Mattighofen	800 kg	EUL 1: 1200 mm EUL 2: 2400 mm
KTM AG Gewerbegebiet Nord 4 AT-5222 Munderfing	Engine Plant	KTM AG Stallhofnerstrasse 3 AT-5230 Mattighofen	800 kg	EUL 1: 1200 mm EUL 2: 2400 mm
KTM AG Gewerbegebiet Nord 16 AT-5222 Munderfing	Logistik-zentrum	KTM AG Stallhofnerstrasse 3 AT-5230 Mattighofen	800 kg	EUL 1: 1200 mm EUL 2: 2400 mm
KTM Components GmbH Gewerbegebiet Nord 8 AT-5222 Munderfing	Suspension	KTM Components GmbH Gewerbegebiet Nord 8 AT-5222 Munderfing	800 kg	max. 1050 mm
	Frame			
	Exhaust			
	Tubing			

1.3 Responsibilities of the Supplier & Approval Process

The supplier is responsible for a packaging design that meets the specified requirements (including labeling and shipping documents). The packaging must be agreed with KTM at an early stage. For approval of the packaging concept by KTM, the supplier must submit the filled out KTM packaging data sheet. The template for the KTM packaging data sheet and the contact information for approval can be found in Chapter 1.4.

Approval is carried out according to the process shown in Figure 1.

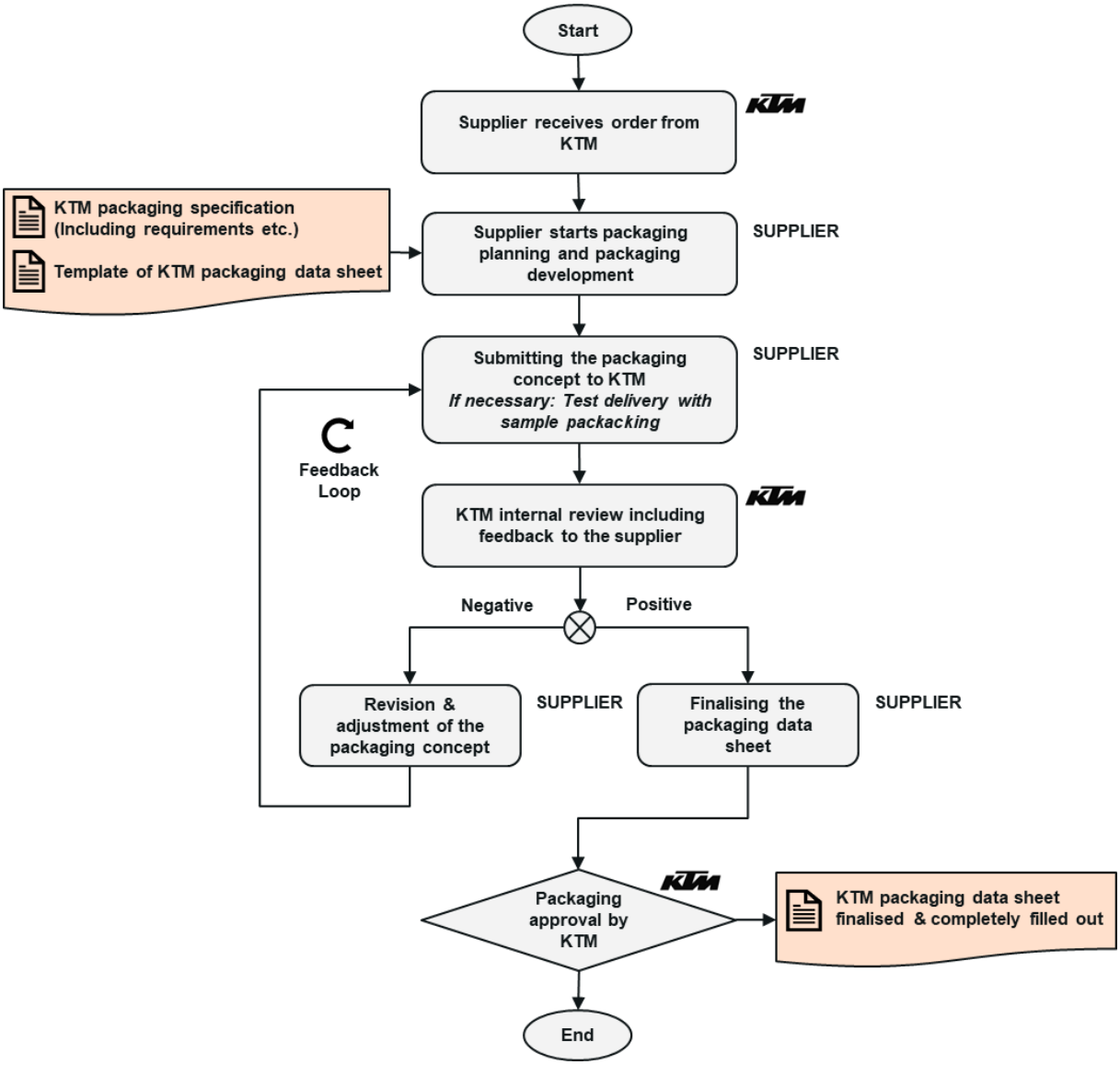

Figure 1: Approval process

The proposed packaging concept may only be used after it has been approved by KTM. In addition, the following points apply:

- The supplier is responsible for using the packaging as defined in the currently valid packaging data sheet.
- Approval does not release the supplier from the responsibility to ensure damage-free delivery. If the packaging or the shipping documents do not meet the requirements during series production, or if quality issues occur, the supplier must propose alternative solutions.
- Any deviations from the packaging specification or the approved packaging data sheet must be coordinated with KTM at an early stage (prior to the first series delivery).
- In the event of non-compliance with these requirements, KTM reserves the right to charge the supplier for any resulting additional costs.

The packaging labeling and shipping documents (e.g. labels and delivery notes) must be submitted once for approval prior to the supplier's first delivery. The process shown in Figure 1 must also be applied in this case. Unlike this, the packaging data sheet must be completed and submitted individually for each article.

The approval process ensures the reliable verification of information and barcodes, thereby enabling a smooth flow of materials and information, as well as cost savings in logistics, in goods receipt and material handling.

The requirements for packaging labeling and shipping documents can be found in Chapter 3.

1.4 Contact & Communication

The KTM packaging data sheet template, data sheets or documents requiring approval (e.g. labels), as well as any questions or other inquiries related to packaging matters, must be submitted to the following email addresses:

- KTM AG: **packaging@ktm.com**
- KTM Components GmbH: **components.packaging@ktm.com**

2. Packaging

The supplier must ensure that recyclable packaging materials are used that do not violate any environmental regulations. Furthermore, all relevant national and international regulations concerning packaging and transport must be complied with. When selecting the packaging, appropriate protection must be ensured while minimizing the use of packaging materials.

To support the practical implementation of environmentally friendly packaging and the use of highly recyclable materials, the organization *Suppliers Partnership for the Environment (SP)* offers practical recommendations for companies in the automotive industry and their suppliers. The aim is to identify and implement sustainable packaging solutions.

The current guideline "*Sustainable Packaging Specification Recommendations for Automotive Manufacturing Operations*" is available at the following link: https://www.supplierspartnership.org/sustainablepackaging/ (last accessed in April 2025).

Further detailed specifications and requirements regarding the packaging of the articles are described below. Additional special requirements for overseas packaging can be found in Chapter 2.5, and for pipes and sheet metal supplied to KTM Components GmbH in Chapter 4.

2.1 Quality Requirements

The packaging is part of the article's delivery scope and must ensure that no reduction in quality or damage occurs, keeping the items in perfect condition regarding appearance and functionality during transport and handling. Additionally, the packaging must be stackable and sufficiently stable. The selection of packaging and load carriers must be suitable for the respective mode of transport (land, sea, air) as well as for long-term storage. This ensures that the item is protected from mechanical damage and external influences such as dirt, dust, climatic effects, and sunlight.

If applicable, the following specific requirements must be implemented and recorded in the KTM packaging data sheet.

2.1.1 Corrosion Protection

Articles that are susceptible to corrosion during transport or storage must be protected by the supplier using suitable corrosion protection measures (e.g. VCI film). The supplier is responsible for ensuring that corrosion protection is maintained in the original packaging for series production items.

2.1.2 ESD Protection

For electronic items, protection against damage caused by electrostatic discharge (ESD) must be ensured during transport and storage. Therefore, all sensitive electronic components (e.g. control units) must be packaged and labeled in accordance with IEC 61340-5.

2.1.3 Dangerous Goods

For dangerous goods (e.g. batteries), appropriate packaging and labeling must be used in compliance with the applicable national and international regulations for transport and storage (e.g. UN 3480 for lithium-ion batteries). Where available, the corresponding documents (test reports, certificates etc.) must be attached to the packaging data sheet.

2.2 Logistic & Production Requirements

For transport handling, storage, and production logistics, lifting must be possible using forklifts or other material handling equipment as well as ergonomic manual handling of the individual packaging units must be ensured. In addition, easy removal or unpacking of the parts must be possible without great effort and opening with a knife (e.g. safety or utility knife) must not cause any damage to the parts.

2.2.1 Lot Sizes and Packaging Units

The standard lot size is **24 pieces** and applies to both production and packaging.

Packaging units should generally be planned based on this quantity. Partial quantities or multiples thereof (e.g. 12 or 48 pieces) are possible but must be clarified within the coordination and approval process with KTM.

Exceptions to the standard lot size / packaging unit (24 pieces):

- Bulk goods: Lot sizes and fill quantities are **individually** coordinated with KTM.
- Division Frame of KTM Components GmbH: **25 pieces** per packaging unit.

2.2.2 Measures & Height

The permissible weight of a packaging unit (e.g. a filled carton within a loading unit) must not exceed **15 kg** to ensure ergonomic manual handling and reduce the risk of injury to employees. The maximum total weight of the entire loading unit (e.g., fully loaded Euro pallet) is specified in Table 1.

The packaging size (e.g. carton dimensions) must generally be compatible with the standard dimensions of the Euro pallet (1200x800 mm). This results in standard base sizes for the packaging of 800x600 mm, 600x400 mm, 400x300 mm, and 300x200 mm, as illustrated in Figure 2.

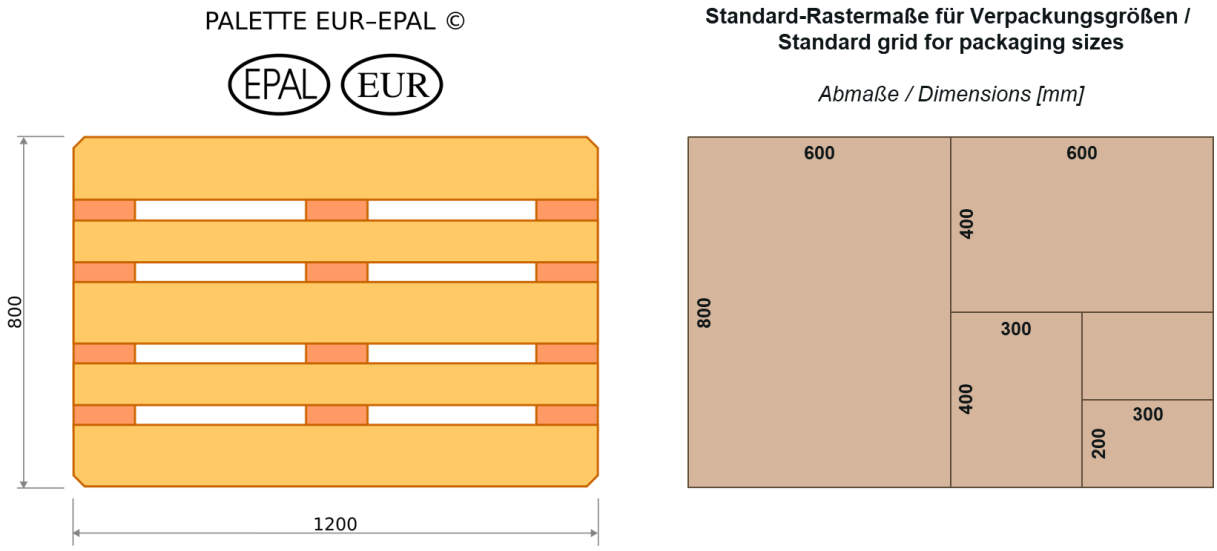

Figure 2: Standard grid for packaging sizes based on Euro pallet

The heights of the load units (goods + pallet) are based on the industry standard dimensions EUL 1 (1200 mm) for stackable goods and EUL 2 (2400 mm) for higher loading units. This information, as well as the maximum total weight of the entire loading unit, is provided in Table 1.

2.3 Regulations for Single-Use & Returnable Packaging

The following mandatory requirements apply:

- Regardless of whether single-use or returnable packaging is used, the supplier is obligated to use the packaging as specified in the approved KTM packaging data sheet. Any deviations must be coordinated with KTM prior to delivery. In case of non-compliance, KTM reserves the right to charge any resulting additional costs.
- Single-use packaging must generally be procured by the supplier.
- Depending on the agreed arrangement or packaging concept, returnable packaging may be the property of either the supplier or KTM. If the agreed returnable packaging (e.g. small or large load carriers) is not available, delivery must be made using alternative or replacement packaging. The supplier is responsible for providing suitable alternative or replacement packaging and must inform KTM immediately of its use.

2.3.1 Returnable Packaging owned by KTM

For returnable packaging owned by KTM (referred to as "KTM returnable packaging"), the following mandatory requirements apply:

- The use of KTM returnable packaging is determined by KTM based on internal criteria. This may include both customized solutions (e.g. article-specific inlays) and standard packaging from KTM box pool (shared across multiple suppliers).
- Empties (empty boxes) must be handled with care. Damages, losses, or similar issues may be charged to the supplier.
- KTM returnable packaging may only be used between KTM and the respective supplier. Usage by subcontractors or any further distribution is prohibited.
- KTM returnable packaging is intended solely for transport or delivery to KTM. Any other use, such as in the supplier's production, for storage, or interim storage, is not permitted.
- Labeling of KTM returnable packaging is only allowed in the designated and clearly marked areas (e.g. “Place label here”). Examples can be found in Chapter 3.2.
- Delivery costs for articles shipped to KTM in KTM returnable packaging will be charged according to the agreed Incoterms. The cost for returning empties to the supplier will be agreed individually during the coordination process with the supplier.

2.3.2 Empties Request for KTM Returnable Packaging

Empties (KTM returnable packaging) must be ordered by the supplier 7 working days before required, using the fully completed KTM form (FB0517 KTM Empties request), at the following email address: **empties.request@ktm.com**.

Both the request for the form and any inquiries regarding empty containers and returnable packaging topics must be directed to this email address.

2.4 Examples for the Usage of Returnable Packaging owned by KTM

Mostly used are small load carriers, which are utilized both as standard packaging (from KTM’s box pool for multiple suppliers) and as small load carriers with article-specific inlays. These carriers must be stacked on a Euro pallet for transport, covered with a lid, and secured with strapping. For larger articles, large load carriers are also used. Foldable versions help save space during the return transport of the empties. Examples are shown in Figure 3.

Figure 3: Example of a foldable large load carrier and properly load secured small load carriers

2.5 Overseas Packaging

Overseas packaging must be durable enough for long-distance overseas transport and protect the articles accordingly (e.g. by providing sufficient stability, moisture protection, and corrosion protection). Wooden pallets must comply with the ISPM 15 standard and bear the IPPC logo. Each load unit must include a master label (see Chapter 3) or a packing list with quantity details. Figure 4 shows an example with container pallets measuring 1140 x 760 mm. The maximum height is determined by Table 1.

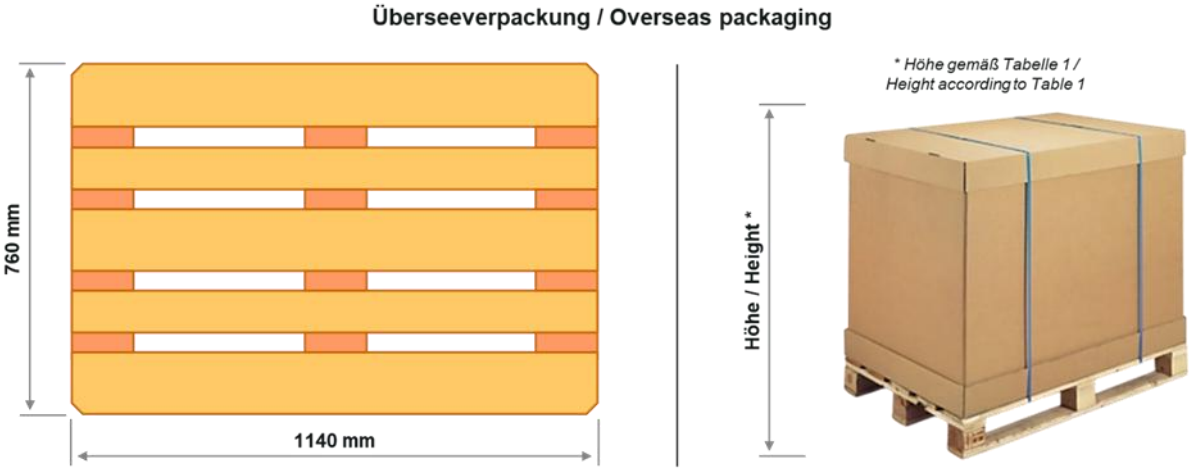

Figure 4: Example for Overseas Packaging and Container Pallet

3. Labeling & Shipping Documents

The packaging concept includes not only the packaging itself but also the labeling and the associated shipping documents. This chapter describes the requirements for these elements, in particular the significance of certain information in barcode form to ensure identification and data processing at goods receipt.

3.1 General Minimum Requirements

The supplier is obligated to properly label the goods in accordance with applicable national and international standards as well as relevant transport regulations and to include all necessary documents (e.g. delivery note, waybill, customs papers, hazardous goods documents) with the shipment. More detailed requirements beyond the general applicable guidelines are described below.

3.2 Labeling of Packaging & Load Carriers / Single Label

Packaging and load carriers must be labeled with a packaging label according to VDA 4902. A typical example is shown in Figure 5 and can also be provided as a template (Excel file) upon request.

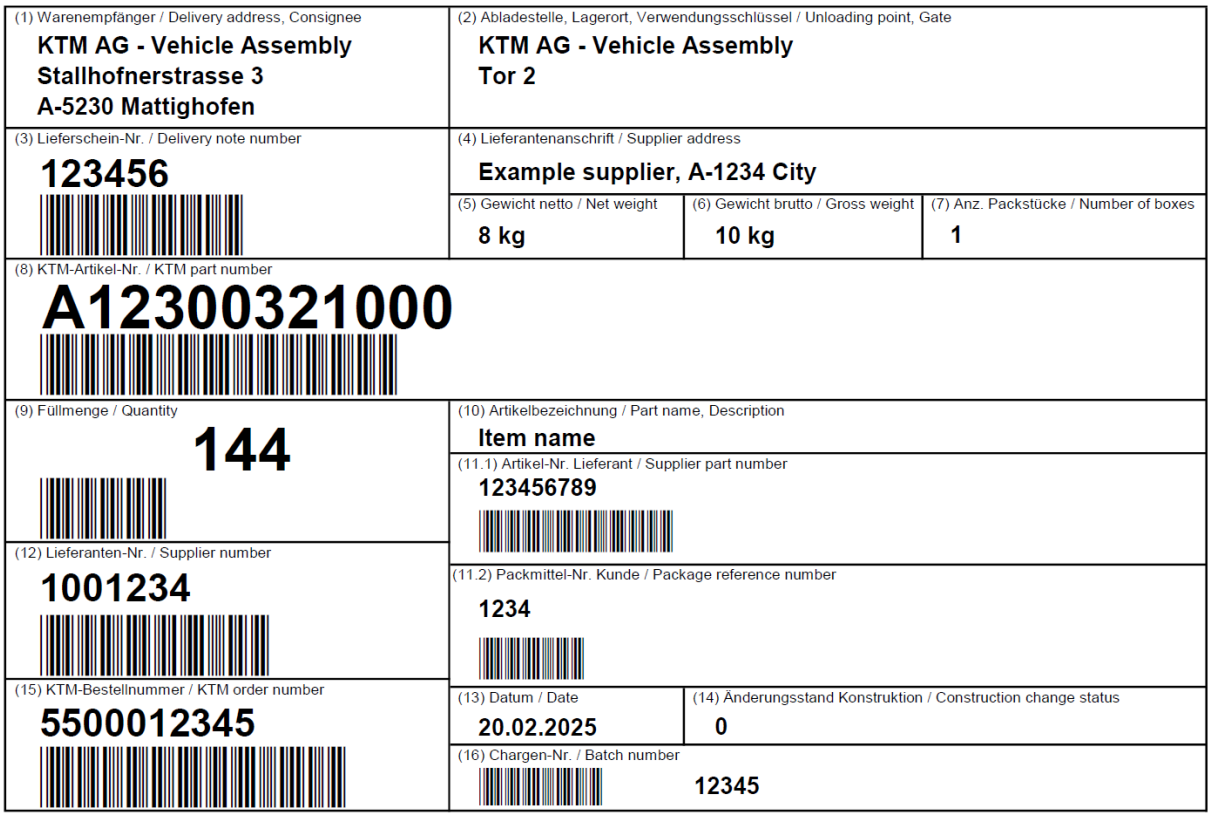

Figure 5: Example of a packaging label according to VDA 4902

A barcode of type Code 39 (minimum font size 14 pt) must be used, and it must be ensured that the barcode matches the printed text content. For articles supplied to KTM Components GmbH, the part number including the index number must be displayed.

If the labeling differs from the label shown in Figure 5 (according to VDA 4902), it must be coordinated with and approved by KTM. → In this context, it must be ensured that at least the following five pieces of information are provided as barcodes. If the KTM order number (which corresponds to the delivery schedule number) cannot be implemented on the label, it may alternatively be included as a barcode on the delivery note. In general, it is essential that these five pieces of information are available as barcodes either on the packaging label or in combination with the delivery note, to allow for automatic data processing via scanner:

- Lieferschein-Nr. / Delivery note number (3) Code 39
- KTM-Artikel-Nr. / KTM part number (8) Code 39
- Füllmenge / Quantity (9) Code 39
- Lieferanten-Nr. / Supplier number (12) Code 39
- KTM-Bestellnummer / KTM order number (15) Code 39

The single label shown in Figure 5 ust be used for individual packaging units such as cartons or small load carriers. This label must also be used for simplified loading units (e.g. a large load carrier that does not contain any further packaging units).

Figure 6 shows examples of how the single label must be applied. It is important that self-adhesive labels may only be affixed to cartons or at the designated positions (e.g. “Place label here”). On returnable packaging, labels may only be attached to the front side using existing label clips or placed inside document pouches. Affixing labels outside of the designated areas is only permitted using adhesive dots.

Figure 6: Examples for a single label

3.3 Labeling of the Loading Unit (Delivery) / Master or Mixed Label

If multiple packages are combined into a single loading unit, the appropriate labeling for single-part and mixed deliveries must be used. See Figure 7: The master label follows the same format as the single label (VDA 4902). The mixed label is not a specific label, but rather a notice text (e.g. "Attention! MIXED LOAD") that serves as an informational and warning message for mixed goods.

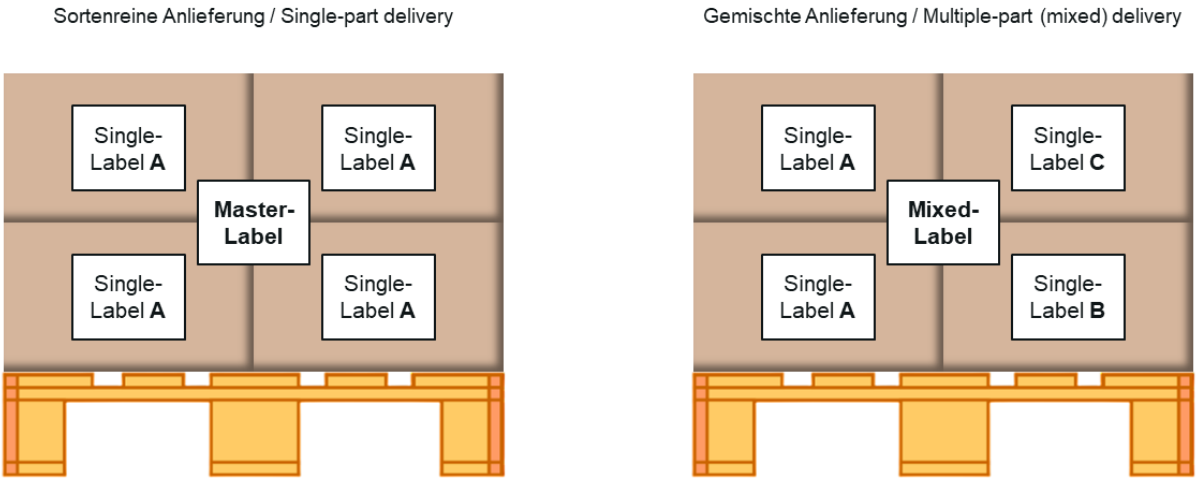

Figure 7: Labeling of homogeneous and mixed deliveries

3.4 Labeling of Single-package Shipment

If packages are not combined into a loading unit but shipped individually (e.g. via a parcel delivery service), it must be clearly visible from the outside which packages belong together. Parcel shipments consisting of multiple related packages must also be labeled as shown in Figure 8.

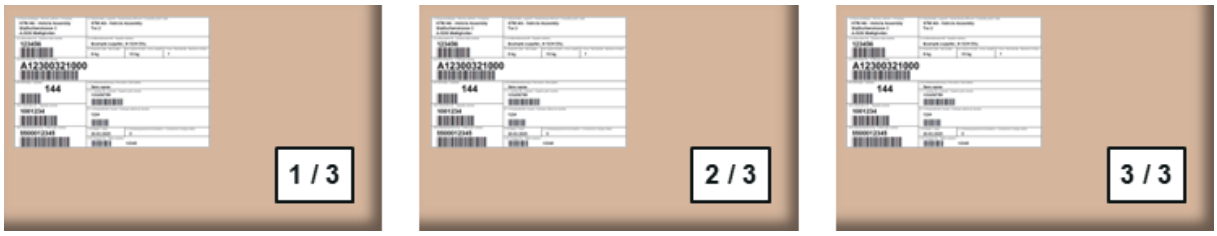

Figure 8: Labeling of related single shipments

3.5 Delivery Note

Each shipment must include a delivery note that complies with the requirements of DIN 4991 and must be clearly visible in a delivery note pouch. A separate delivery note must be issued for each purchase order. Consolidated delivery notes or any other exceptions must be coordinated with KTM in advance. In addition to the information required by DIN 4991, the following details must also be provided:

- Delivery note number (Code 39, min. font size 14 pt)
- KTM order number (Code 39, min. font size 14 pt)
- Supplier number and supplier name
- KTM article number and article description
- Total quantity and quantity of each unit
- Incoterm

3.6 Freight Forwarding Order & Waybill (CMR)

A freight forwarding order or waybill is required for every delivery. For international transports, a CMR waybill is mandatory.

3.7 Customs Documents & Dangerous Goods Documentation

If applicable, all relevant documents must be included by the supplier, and the necessary approvals must be obtained in a timely manner. For shipments subject to customs duties, all customs-related accompanying documents must be provided in proper form. For the transport of hazardous goods, the applicable national and international dangerous goods regulations must be observed.

4. Special Requirements for KTM Components GmbH

4.1 Special Packaging of Pipes

The following describes the requirements and specifications for the delivery and unloading of approximately 6-meter-long pipes (see Table 2).
The packaging must be designed to ensure that the pipes arrive free of damage and that unloading can be performed using a side forklift. Immediately after unloading, the packaging must be removed, for this purpose, two band straps are required directly around the bundle. These allow both the removal of the packaging and the storage of the pipes by overhead crane into the automated pipe storage. The pipes must not exceed a maximum length of 6500 mm, as longer pipes cannot be accommodated in our warehouse.

Table 2: Requirements for the packaging of pipes

Description	Dimensions / Specifications
Total length	max. 6600 mm
Total width	max. 600 mm
Total height	max. 600 mm
Width of pipe bundle without packaging	max. 550 mm
Height of pipe bundle without packaging	max. 480 mm
Weight per bundle	max. 2.000 kg
Ground clearance per bundle	70 mm
Slings for overhead crane: Two round slings must be attached under the packaging	Positioning: measured from the center, approx. 1300 to 1500 mm (see Figure 9))

Additional points to be considered:

- Lamiflex packaging is not permitted.
- The strapping band must be made of plastic – metal bands are not allowed!
- A pipe bundle may only contain pipes of the same type.
- The pipes must be delivered clean and free of corrosion.
- Corrosion protection must be coordinated with the customer and approved in writing.

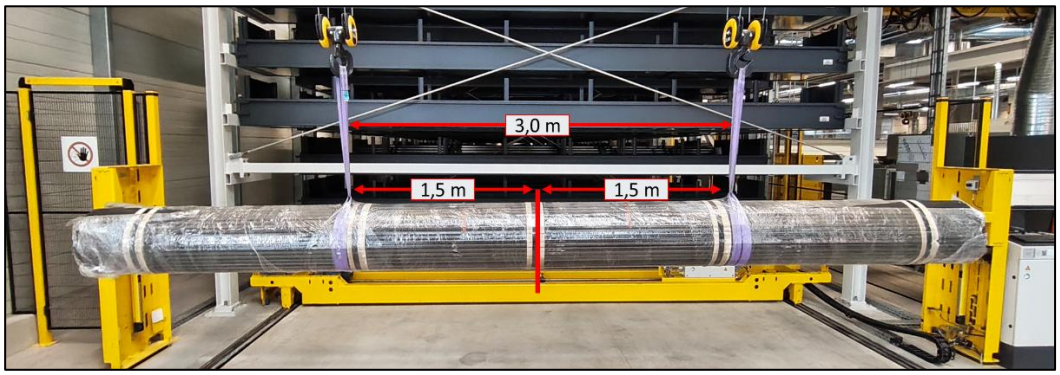

Figure 9: Positioning of the round slings under the pipe bundle

4.2 Special Packaging for Sheet Metal

The unloading of the sheet metal is carried out using a forklift. To ensure this, the sheet metal must be delivered on special wooden pallets. These wooden pallets should be made of cross and longitudinal beams and may only be a few centimeters larger than the sheet metal placed on them. To prevent slipping on the pallet, the sheet metal must be secured with several strapping bands and edge protection. The top side of the packaged sheet metal must be protected to prevent any damage to the uppermost sheet metal. Table 3 describes the requirements and maximum dimensions.

Table 3: Requirements for the packaging of sheet metals

Description	Dimensions / Specifications
Length	max. 3050 mm
Width	max. 1550 mm
Height	max. 300 mm
Weightt	max. 2.500 kg
Clearance palet	70 mm
Corrosion protection	Metal sheets must be packed in VCI film.

Figure 10 shows an example of the required packaging design for metal sheets.

Figure 10: Example for sheet metal packaging

No paper may be placed between the individual metal sheets. If the use of paper is deemed necessary, it must be coordinated with KTM in advance and recorded in the KTM packaging data sheet.

5. Change History

<Versions are assigned as follows: 01 -> 02 >

Version	Date	Changes	Responsible
01	04.09.2025	New publication / relaunch	Neumayr G.