

KOSTAL

Logistics Guideline (KLG)

ENGLISH

Version 2.0

Leopold KOSTAL GmbH & Co. KG

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This KOSTAL logistics guideline is obligatory for suppliers to KOSTAL and sets out requirements to be met in order to achieve optimum delivery quality.

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Preamble

1.1 Partnership relations and validity

This guideline applies to all deliveries of materials to be made for KOSTAL products to the subsidiaries or partners of

Leopold KOSTAL GmbH & Co KG

Automotive Electrical Systems and associated organisations,

hereinafter referred to as "KOSTAL",

by all KOSTAL suppliers world-wide and their authorized sub-suppliers, including Group companies, hereinafter referred to as "SUPPLIER".

If the SUPPLIER is not in a position to deliver in accordance with the following specifications, he must inform KOSTAL of this before a shipment is made.

The SUPPLIER bears all costs arising from non-compliance with the following stipulations.

The following stipulations apply in addition to KOSTAL's ***purchasing conditions***. If these documents contain clauses which contradict each other, priority lies with the wording of existing contracts with the SUPPLIER, followed by KOSTAL's ***purchasing conditions*** and then the ***KOSTAL logistics guideline (KLG)***.

1.2 Objective / purpose

The purpose of this guideline is to inform SUPPLIERS to KOSTAL of the requirements which must be met to achieve optimum delivery quality. By cooperation between the parties the processes are to be standardized and costs in the supply chain reduced. In addition to the ***KOSTAL logistics guideline (KLG)*** compliance is also required with the ***EDI guideline***, the ***supplier assessment*** guideline and the ***KOSTAL packaging guideline (KPG)***.

2 General

2.1 Availability of contact personnel

Before the first shipment is made the SUPPLIER shall nominate a contact person in his logistics organisation who is available during the day if questions arise. In addition a contact person available outside normal working hours must be nominated to achieve **availability 24hrs / seven days a week.**

2.2 First-in / first-out (FIFO)

In managing his stock and delivery system the SUPPLIER must comply with the FIFO principle. FIFO describes a stock control strategy whereby products first put into stores are also the first removed from stores

2.3 Traceability

The SUPPLIER must ensure the traceability of production batches. This is achieved in KOSTAL and at the SUPPLIER's premises by linking the batch number to the logistics information structure. The identification of the batch and/or the date of production is recorded on the product label (in clear text and as a bar-code) and also on each delivery note. Only one batch is permitted for each item in the delivery note. In addition the batch number and the date of production must be transmitted in the advices sent via the electronic information interface (EDI/Web-EDI).

Further, the SUPPLIER is required to manage shipments, production batches and serial numbers in such a way that, for 15 years, the link between production batches, handling units and shipments can be traced. Other requirements regarding traceability (e.g., batch intervals) are regulated in specific projects as part of a traceability contract and are specified by the KOSTAL purchasing location.

2.4 Revision level

In the KOSTAL system material numbers are always extended to include the current revision level (= the drawing issue level). In all data exchange and communications, the SUPPLIER must state the revision level in addition to the actual material number (on the product label, for example). The revision level must be that of the product drawing / specification applicable at the time of production. If products of different revision levels are delivered within a shipment, they must be shown in separate delivery notes. In addition, the first shipment of products to a new revision level must be identified with the marking "New Revision Level".

2.5 Supplier assessment

A supplier assessment is carried out regularly in order to achieve a permanent improvement in the relationship between KOSTAL and its SUPPLIERS. Based on an "ABC" system an assessment is made of the supplier performance with the emphasis on quality, logistics and purchasing. Further information is set out in the **supplier assessment guideline**.

2.6 Logistics assurance agreement (LSV)

The **logistics assurance agreement (LSV)** regulates the links between the SUPPLIER and the KOSTAL logistics organisation. In addition to the information in the **KOSTAL logistics guideline (KLG)** it sets out fundamental requirements which must be met in order to secure the supply chain between the SUPPLIER and KOSTAL.

3 The series production process

3.1 Delivery methods

One or more of the following delivery methods may be specified by the KOSTAL purchasing organisation for the SUPPLIER to use, depending on the products to be delivered.

If returnable packing has been agreed between KOSTAL and the SUPPLIER the quantities of packing in circulation will depend on the delivery method and is specified in the **KOSTAL packaging guideline (KPG)**.

The Incoterms stated in the purchasing conditions shall apply, independent of the delivery method.

3.1.1 Direct delivery

The SUPPLIER delivers direct to the KOSTAL production plant. Deliveries are made at agreed delivery intervals, such as "just-in-time" (JIT). This also includes deliveries via supplier Kanban.

3.1.2 Delivery to an external stores

The SUPPLIER delivers to an external stores operated by KOSTAL as the receiving point. Deliveries are made at agreed delivery intervals, such as "just-in-time" (JIT). This also includes deliveries via supplier Kanban.

3.1.3 Consignment stores

The SUPPLIER delivers a previously agreed product or product group within minimum/maximum stock limits to a consignment stores operated by KOSTAL. The SUPPLIER controls shipments on the basis of requirements, stock levels and the minimum/maximum stock limits in the consignment stores. These stock limits are agreed between KOSTAL and the SUPPLIER.

The SUPPLIER is responsible for the products until they are taken from the consignment stores by KOSTAL. The SUPPLIER is therefore responsible for the stocks and the movements of the products until the time when they are taken by KOSTAL. A consignment stores can be established within a KOSTAL plant or with an external service provider. Details are set out in the **consignment contract**.

3.1.4 External consolidation service

The SUPPLIER delivers to an external consolidation service nominated by KOSTAL, which forwards consolidated shipments to KOSTAL production plants. This may require special arrangements regarding delivery dates and documents.

3.1.5 Drop shipping

The term "drop shipping" describes a logistics material flow system in which one or more storage or processing operations in the physical handling of products are by-passed. For the SUPPLIER this means that he delivers to a delivery point defined by KOSTAL, using product labels and shipping documents provided by or at least specified by KOSTAL.

3.2 Electronic data interchange (EDI)

KOSTAL has standardized on electronic data interchange with SUPPLIERS in accordance with the **EDI guideline**. SUPPLIERS not EDI-capable are expected to use the internet-based webEDI application. As a general rule KOSTAL will not accept any other transmission media.

The standards set out in the **EDI Guideline** must be observed in order to exchange data successfully. KOSTAL will also provide a training course for SUPPLIERS using the webEDI. The **EDI general commercial conditions** and **webEDI general commercial conditions** regulate the conditions for data interchange between KOSTAL and third parties.

3.2.1 Delivery call-off schedules by KOSTAL

As a general principle KOSTAL issues delivery schedules via EDI or webEDI by remote data transmission (DFÜ). This applies to all bought-in parts covered by a frame order or single order between the SUPPLIER and KOSTAL. The delivery schedules are generated electronically and are not signed. They are valid from the time they are issued by KOSTAL and no acknowledgement is required from the SUPPLIER. Any dispute by the SUPPLIER regarding a delivery schedule must be made in writing within 5 (five) working days from receipt. Delivery schedules remain valid until KOSTAL issues new delivery schedules.

In addition to the delivery schedule, KOSTAL generally issues a forecast showing demand for up to 18 months or for the duration of the blanket contract. The demand forecast does not authorize deliveries before the stated delivery date.

The SUPPLIER must deliver the quantities ordered at the specified delivery date without deviating from the specified times. Unless otherwise specified the delivery date stated is always the date at which the shipment is received at the destination. The SUPPLIER must comply with this date. Any deviations will lead to points being deducted in the supplier assessment.

3.2.2 Order processing by the SUPPLIER

Where EDI is used the SUPPLIER must check incoming EDI messages for transmission errors and process them manually if necessary.

If webEDI is, used the SUPPLIER must make a check at least once a week on his supplier account and incoming delivery schedules from KOSTAL.

In both cases a plausibility check must be made. Anything unclear must be discussed with the purchasing scheduling department at the KOSTAL location which has placed the order.

3.2.3 Advance shipping notes (ASN)

Each delivery intended for KOSTAL must be reported by the SUPPLIER with an electronic advance shipping notification (ASN) which can be processed by KOSTAL, before the shipment arrives at the receiving point. The ASN must show the quantities shipped and the expected arrival date. This can be ensured either by EDI or via the webEDI platform.

The ASN must comply with the physical packing structure of large and small load carriers. These must show the KOSTAL material numbers and quantities of products shipped, as well as the KOSTAL material numbers and quantities of packing units and returnable auxiliary packing materials.

Items delivered as mixed pallets must be stacked in layers of the same material number. Mixed layers of different delivery note numbers or part numbers are not permitted.

Further information is provided in the **EDI general commercial conditions** and **webEDI general commercial conditions**.

3.3 Product identification

The following describes the KOSTAL standard for creating transport labels and their attachment to packing units.

This is essential in order to ensure traceability and monitoring of the material flow through efficient data logging as the products are received, moved into and out of stores, used or stock-checked.

3.3.1 Handling unit management

KOSTAL uses handling unit management to illustrate the movement of materials. As part of handling unit management the complete logistics process chain is represented by movements of handling units (HUs) which contain the materials allocated to them.

A handling unit (HU) is a physical item, made up of packing equipment (a pallet or similar and associated packing material) and the products packed in or on it. A handling unit is always a combination of products and packing equipment. All the information regarding the products (e.g., batch numbers and serial numbers) should always be accessible in the handling unit.

Handling units can be stacked and it is possible to stack several of them to form a master handling unit. A handling unit always has a unique, scannable handling unit identification number.

The following examples illustrate the system:

Example showing the structure of a single handling unit:

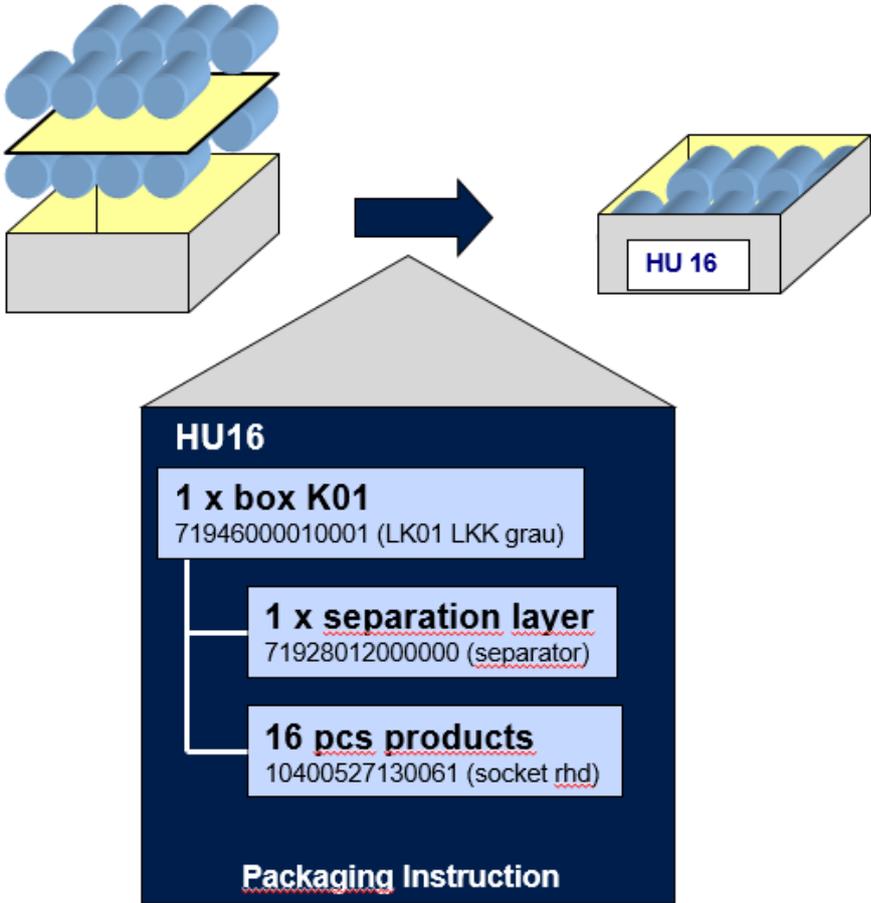


Fig. 1 : Single handling unit

Example showing the structure of a master handling unit:

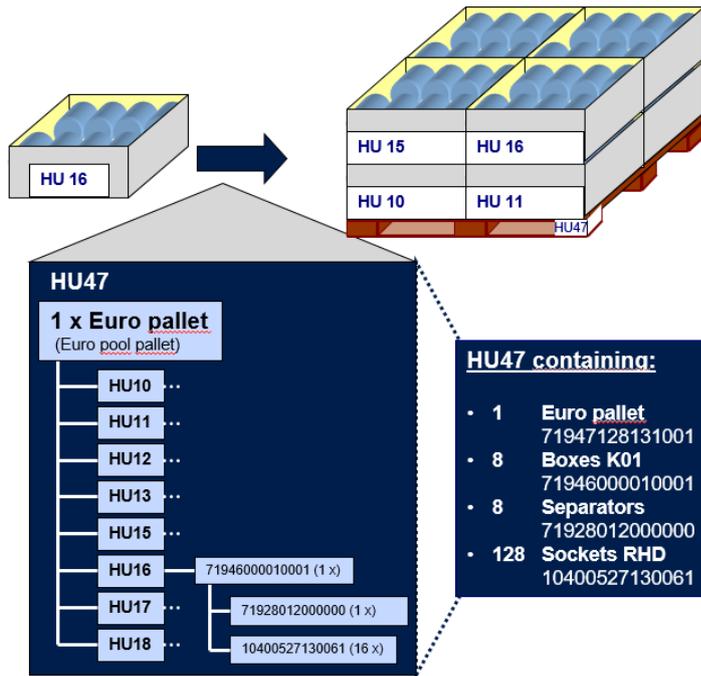


Fig. 2 Master handling unit

3.3.2 Transport label

Each packing unit must have a transport label with a bar-code to identify the contents and packing structure. Each pallet or shipping unit must also have a transport label with a bar-code (the so-called master label) stating the contents of the unit. The labelling must comply with VDA4902 for all packing units and all transport labels must have a unique handling unit number (HU number).

It is a prerequisite that the information on the transport label complies with the EDI data which has been transmitted. SUPPLIERS unable to generate the necessary transport labels with their system must use webEDI and employ this system to generate the transport labels required.

In addition to the above, KOSTAL may request labelling to other current standards (e.g., Odette, GTL) or customer-specific identification for specific projects.

Examples of transport labels:

(1) Ship-to party Leopold KOSTAL GmbH & Co. KG		(2) Unloading point - storage location - usage key 0570	(3) Delivery note number (N) 01458739 	
(8) Customer reference number (P) 10067851-00 				
(9) Quantity (Q) 250		(10) Description of delivery, service LED S ice blue VMW1158LCS-10-G-TR belt		
(12) Supplier number (V) 719371 		(11) Supplier reference number (308) 31883516		(13) Production date 15.12.2018
(15) Package number (S) 31883512 		13.3) Expiration date 15.12.2019		(14) Engineering change status 00
Country of Origin: TW		(16) Batch number (H) B12345 		

Fig. 3: Transport Label (Single Label VDA short)

Data content in 2D-barcode Single Label:

No.	Field name/ Data element	Text sample	Identifier	No. of points (max)
1	Delivery note number	01458739	N	8
2	Customer reference number	10067851-00	P	22
3	Supplier reference number	31883516	3OS	22
4	Quantity	250	Q	7
5	Supplier number	719371	V	8
6	Package number	31883512	S	9
7	Batch number	B12345	H	10
8	Expiration Date	15.12.2019	14D	10
9	Production Date	15.12.2018	16D	10

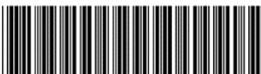
(1) Ship-to party Leopold KOSTAL GmbH & Co. KG D-58513 LÜDENSCHIED		(2) Unloading point - storage location - usage key 0570	
(3) Delivery note number (N) 01458738 		(4) Supplier address (name, plant, zip code, city) Stanley Electric GmbH D-64546 MÖRFELDEN-WALLDORF	
		(5) Net weight 3	(6) Gross weight 28
		(7) Number of packages 4	
(8) Customer reference number (P) 10067851-00  			
(9) Quantity (Q) 1000 		(10) Description of delivery, service LED S ice blue VMW1158LCS-10-G-TR belt	
		(11) Supplier reference number (30S) 31883516 	(13) Production date 15.12.2018
(12) Supplier number (V) 719371 		(13.3) Expiration date 15.12.2019	
		(14) Engineering change status 00	
(15) Package number (M) 31883507 		(16) Batch number (H) B12345 	
Country of Origin: JP		(17) Material Tag VDA 4902, Version 4	

Fig. 4: Transport Label (M-Label VDA)

Data content in 2D-barcode M-Label:

No.	Field name/ Data element	Text sample	Identifier	No. of points (max)
1	Delivery note number	01458738	N	8
2	Customer reference number	10067851-00	P	22
3	Supplier reference number	31883516	3OS	22
4	Quantity	1000	Q	7
5	Supplier number	719371	V	8
6	Package number	31883507	M	9
7	Batch number	B12345	H	10
8	Expiration Date	15.12.2019	14D	10
9	Production Date	15.12.2018	16D	10

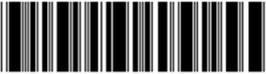
(1) Ship-to party Leopold KOSTAL GmbH & Co. KG D-58513 LÜDENSCHIED		(2) Unloading point - storage location - usage key 0570	
(3) Delivery note number (N) 01458740 		(4) Supplier address (name, plant, zip code, city) Stanley Electric GmbH D-64546 MÖRFELDEN-WALLDORF	
		(5) Net weight 3	(6) Gross weight 28
		(7) Number of packages 2	
(8) Customer reference number (P) Mix  			
(9) Quantity (Q)		(10) Description of delivery, service	
		(11) Supplier reference number (305) Mix 	(13) Production date
(12) Supplier number (V) 719371 		13.3) Expiration date	(14) Engineering change status
(15) Package number (G) 31883514 		(16) Batch number (H)	
Country of Origin:		(17) Material Tag VDA 4902, Version 4	

Fig. 5: Transport Label (G-Label VDA)

Data content in 2D-barcode G-Label:

No.	Field name/ Data element	Text sample	Identifier	No. of points (max)
1	Delivery note number	01458740	N	8
2	Customer reference number	Mix	P	22
3	Supplier reference number	Mix	3OS	22
4	Supplier number	719371	V	8
5	Package number	31883514	G	9

3.3.3 Attaching the transport label

Each transport label must be attached with at least two adhesive sticky glue dots in such a way that it cannot fall off under the stress of further processes. No more adhesive sticky glue dots than necessary must be used. The adhesive sticky glue dots must be easily removed without leaving residues. It is not permitted to stick the full surface of labels to returnable packing and self-adhesive labels are prohibited. Transport labels must be applied to a flat surface so that they are protected from damage and to ensure that they can be read easily. Bar-codes and clear text must not be covered with adhesive.

In addition, when applying transport labels, it must be ensured that any old transport labels are removed and that any in-house labels used by the SUPPLIER are covered by the transport label.

Depending on the size of the packaging the transport labels must be applied to the leading end or the side:

Label applied to a pallet

Pallet size	Label location
1200 x 800 mm	Top left on the leading end
1200 x 1000 mm	Top left on the leading end
Other	Top left on the leading end

Label attached to a container

Container base	Label location
800 x 600 mm	On a side
600 x 400 mm	On the leading end
400 x 300 mm	On a side
300 x 200 mm	On a side
Other	On a side

3.3.4 Identifying electronic components

The SUPPLIER must comply with specific identification stipulations for the identification of PCBs, multiple PCBs and electronic components. The table below explains the content of the fields in the label.

(1) Part number customer (P) 12022833-00 				
(2) Quantity (Q) 1000 	(3) MS-Level M1	(4) Expiration 15.12.2019	(5) PB-free 	
(6) Vendor Batch / Production Date (H) B123345 				
(7) Supplier (V) 719371 	(8) Luminous Intensity Rank LI1			
(10) HU-No. (S) 31883515 	(9) Country of Origin MY			
(12) Prod. Date 15.12.2018				
(11) Description LED S green true VCEL1152GS-TR belt				

Fig. 6: Transport Label for electronic components

No.	Field name/ Data element	Description	Bar- code	Ident- ifier	No. of points (max)	Field No. in VDA 4902_V4
1	Part no.. customer	KOSTAL material number, 14 characters in 2 sections	<input type="checkbox"/>	P	22	8
2	Fill quantity	Quantity in a handling unit as in packing regulations (no leading zeros)	<input type="checkbox"/>	Q	7.3	9.1
3	MS level	Moisture sensitive level of the product. In accordance with IPC/JEDEC J-STD-033A): the field contains: 1. the MS level identification symbol 2. the highest MS level The MS level must be stated for all SMD items. MS levels are specified in accordance with IPC/JEDEC J-STD-020C.	-	Z	2	
4	Expiration date	Date code: manufacturers data with traceability to the expiration data	-	14D	10	13.3
5	Lead-free	This field contains the lead-free symbol (see example) if no lead used in the article	-			
6	Batch no.	Identification number of the production batch Maker's details with traceability to production batch. Traceability can be via the batch number, the date code or both. If traceability is via the production date the same date must be entered in fields 4 and 5	<input type="checkbox"/>	H	10	16
7	Supplier no.	Supplier number issued by KOSTAL	<input type="checkbox"/>	V	8	12
8	Semi-class	Identification of the LED semi-class	-	LIR	4	
9	Country of origin	Country of manufacture, production, or growth where the article or product comes from	-			
10	Handling unit no.	Unambiguous HU identification number for each packing unit, without leading zeros. Once per calendar year.	<input type="checkbox"/>	S	9	15
11	Description	KOSTAL description of the material	-	-	30	10
12	Production date	Date code: Maker's data with traceability to the production date	<input type="checkbox"/>	16D	10	13.1

Data content in 2D-barcode electronics label:

No.	Field name/ Data element	Text sample	Identifier	No. of points (max)
1	Delivery note	01458740	N	8
2	Part number Customer	12022833-00	P	22
3	Quantity	1000	Q	7
4	Supplier	719371	V	8
5	HU-No.	31883515	S	9
6	Vendor Batch	B123345	H	10
7	MS-Level	M1	Z	2
8	Expiration	15.12.2019	14D	10
9	Production Date	15.12.2018	16D	10
10	Luminous Intensity Rank	LI1	LIR	4

3.3.5 Attaching transport labels to products on reels

Transport labels must be fixed to a flat surface so that they are protected from damage and to ensure that they can be read easily.

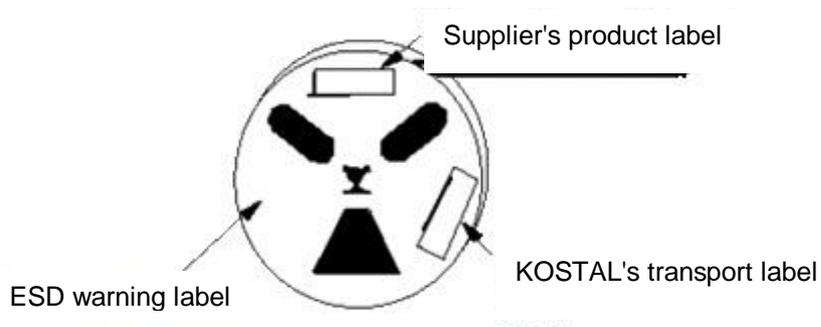


Fig. 7 : Transport label on a reel

Where dry-packs are used one label is attached to the coil inside the dry-pack and one additional label on the dry-pack itself. A label only on the coil or only on the dry-pack is not sufficient.

Reel diameter	Label location
All reels	On the surface, not in the middle

3.4 Packaging

The following sections of the document describe KOSTAL's basic packaging requirements. Details of approved packing materials, together with the planning, sourcing, management and use of packing are set out in the **KOSTAL packaging guideline (KPG)**. KOSTAL standard packaging is described in the overview **packaging data sheet**.

3.4.1 Types of packaging

Depending on KOSTAL's instructions products can be delivered using the following types of packaging:

Type of packaging	Definition
KOSTAL returnable packaging*	External and internal packaging, the property of KOSTAL, used returned for multiple use between KOSTAL and SUPPLIER and designed for several years of use
Special packaging	Special packaging, the property of KOSTAL, not to KOSTAL standards but used because of special (product) requirements
Supplier packaging	Packaging, the property of the SUPPLIER, used following release by KOSTAL for deliveries to KOSTAL.
General pool packaging	Packaging from a common container pools (e.g. small load carriers [KLT] to VDA specifications)
Disposable packaging	External and internal packaging, used once only for shipments and then disposed of

* An overview of KOSTAL standard returnable packaging is set out in the **packaging data sheet**.

3.4.2 Packing planning

The SUPPLIER is responsible for planning the packing of the products to be delivered. A packing concept must be drawn up for each product.

Planning the packing provides the SUPPLIER with a basis for calculating his quotation. The SUPPLIER shall include the expected logistics costs for packaging, transport and other cost elements in his quotation. The packing concept will depend on the type of packaging and must be presented to KOSTAL by the SUPPLIER in the form required (e.g., packing data sheet, technical drawings, packing samples). Approval of the packing must be obtained from KOSTAL before production packaging is ordered. Approval by KOSTAL of the packing does not release the SUPPLIER from his obligation for the product quality.

The objective is to have the production packing in use by the date of the trial run (the SUPPLIER must ask for this date in the project). KOSTAL also expects that, as a preventive measure, the SUPPLIER will plan and reserve alternative packing so that, if the production packing is not available and after the SUPPLIER has obtained a **deviation approval (AWG)** the alternative packing can be used.

It must be possible for KOSTAL to make changes to the packaging specification (regarding type, size, etc.) before and after the start of production. The SUPPLIER is not permitted to make changes to packing independently.

3.4.3 Obtaining packing

Disposable packaging

The SUPPLIER must obtain disposable packaging. KOSTAL will not provide disposable packing.

KOSTAL returnable packaging

Where KOSTAL returnable packaging is used and if not otherwise agreed, KOSTAL will obtain KOSTAL standard packaging at KOSTAL's own cost and will make these available to the SUPPLIER. The quantities to be obtained are determined on the basis of the **KOSTAL packaging guideline (KPG)**.

Returnable packaging aids and internal packaging are always planned and obtained by the SUPPLIER on the basis of the **KOSTAL packaging guideline (KPG)**. KOSTAL can become the owner by a one-off payment or by calculated payments included in the price of the product.

Other packaging

As a general principle, obtaining all other types of packaging is the responsibility of the SUPPLIER. Any exceptions must be defined in the specific project. KOSTAL undertakes to handle the returnable packaging provided with good care and to make it ready for the SUPPLIER to collect. Reductions in value caused by normal wear and tear are borne by the SUPPLIER. The quantities to be obtained are determined on the basis of the **KOSTAL packaging guideline (KPG)**.

If the SUPPLIER wishes to obtain extra packaging in addition to the quantities provided or agreed with KOSTAL, an approval for this must be obtained from the relevant KOSTAL purchasing department. If an approval is issued the SUPPLIER can obtain further packaging at his own cost.

3.4.4 Packaging management

All returnable packaging items agreed for transporting products between the SUPPLIER and KOSTAL are logged and managed in packaging accounts. A separate packaging account is set up and operated for each returnable packaging item exchanged between KOSTAL and the SUPPLIER. The SUPPLIER must also establish and manage packaging accounts for returnable packaging items. Once a year, as well, as whenever requested, an inventory check must be carried out at a date set by KOSTAL and the results must be reported to the KOSTAL empty packaging materials management.

3.4.5 Handling packaging

The SUPPLIER must pack and deliver in accordance with the terms set out in the **KOSTAL packaging guideline (KPG)** for handling packaging. KOSTAL will make the necessary returnable packing ready for collection, based on current requirements. The SUPPLIER is required to advise his requirements for returnable packaging in writing, one week in advance and must collect the empty packaging made ready by KOSTAL in the following week. The frequency of collection must match the frequency of delivery as a minimum. While the returnable packaging is held by the SUPPLIER he must ensure that it is not damaged or contaminated during storage, transport or the packing process.

3.4.6 Cleaning

The SUPPLIER must ensure that only cleaned packaging is used for deliveries to KOSTAL and to any organisation authorized by KOSTAL. In this connection the SUPPLIER must specify and comply with requirements for the cleanliness of returnable packaging, based on the needs and specific requirements for the products to be packed. This applies not only to the interior of containers; the exterior must also meet basic cleanliness requirements.

3.5 Transport

Unless otherwise agreed with KOSTAL delivery is free to the delivery address stated by KOSTAL. The collection and return of empty packaging by the SUPPLIER are carried out at the SUPPLIER's cost.

The SUPPLIER must take all necessary precautions to ensure transportation does not impair product quality. During the entire transport chain the SUPPLIER has to ensure that load units are not exposed to inclement weather.

Products found to be damaged on arrival will be returned at the SUPPLIER's cost. In addition, undamaged products in the same shipment may not be accepted.

3.5.1 Transport facilities

Appropriate vehicles must be used for unloading on end ramps. Because KOSTAL locations are not designed as standard to accept "jumbo" vehicles the use of this vehicle type has to be agreed in individual cases with the receiving plant.

3.5.2 Documents accompanying the products

The SUPPLIER must ensure that the documents accompanying the products comply both with KOSTAL's requirements and legal requirements for national / international transport. KOSTAL's minimum requirement is a shipping document according to VDA 4912 standard. Alternatively the SUPPLIER can use delivery notes and shipping contract documents to the relevant VDA recommendations (VDA 4922, version 2; DIN4991).

Each shipping contract must be accompanied by a set of delivery notes and all other essential papers (customs documents such as EUR1, T1 etc.). All the delivery notes included in the shipment must be listed in the shipping contract. A separate delivery note must be used for each material number and each revision level. It is forbidden to deliver various material numbers / revision levels on a single delivery note. Further, different batches must not be shipped on a single delivery note. Essential details in the delivery documents include the KOSTAL order number, the KOSTAL material number, the revision level, nett and gross weights, quantities, the number of packages, the packaging material number, the quantities of packaging materials used and the delivery note number. In addition, where products are to pass through customs, an appropriate comment must be included in the freight note / shipping contract.

3.5.3 Goods Receiving

Goods receiving times vary from one receiving plant to another and are set out in the appendix to the **KOSTAL logistics guideline (KLG)** for each KOSTAL subsidiary. Deliveries to be made outside the specified receiving times must be advised beforehand and must be approved by KOSTAL. In the goods receiving process deliveries are checked on the basis of the requirements set out in this present guideline and compared with the data in the order or contract. KOSTAL reserves the right to return premature or excessive deliveries to the SUPPLIER.

3.5.4 Hazardous materials

Hazardous materials must be delivered in accordance with the regulations in the relevant country regarding the transport of hazardous materials. The SUPPLIER is required to provide the carrier with all the documents required for transporting hazardous materials. In the case of air-freight deliveries the stipulations of the International Aviation Association (IATA-DGR) must be observed. With deliveries by sea freight the International Maritime Dangerous Goods Code (IMDG) must be observed.

3.5.5 Proof of delivery

If required, the SUPPLIER must provide proof of delivery (proof of collection if products are collected by KOSTAL) free of charge.

3.5.6 Acceptance of costs

Transport costs arising through the fault of the SUPPLIER are charged to the SUPPLIER. These costs include special journeys caused by late deliveries and shipments returned because they were premature or excessive, as well as the return of defective products. Furthermore, costs incurred by KOSTAL because of non-compliance with logistics guidelines (e.g., investigations where KOSTAL

material numbers are not stated, or re-packing because of non-compliance with packing stipulations) will be charged to the SUPPLIER.

3.6 Deviations from series production processes

Deviations from production processes should be avoided. If a deviation becomes unavoidable this must be reported to KOSTAL immediately and pro-actively by the SUPPLIER and the requirements described below must be complied with.

3.6.1 Deviation request (AWG)

In the event of deviations from processes, packing and products in exceptional cases the SUPPLIER can submit a **deviation request (AWG)** to the KOSTAL logistics organisation. The deviations, the measures taken to ensure deliveries and corrective actions must be stated in writing, together with the duration of the deviation and/or the quantity of products to be delivered under the deviation. In addition it must be explained why the non-conformance cannot be corrected at short notice.

A **deviation request (AWG)** is approved only after technical clarification and a written release by the KOSTAL quality assurance department.

3.6.2 Special deliveries

In principle the SUPPLIER must deliver to all the delivery points stated by KOSTAL in the blanket contract. In certain cases (e.g., for quality reasons, checks on an initial delivery, short-term changes in demand) a decision may be taken by the KOSTAL purchasing scheduling or the KOSTAL quality department to change the delivery point for individual shipment, to a new delivery point.

In such cases a form completed by KOSTAL provides the authority for the SUPPLIER to ship to a different delivery point. One copy of the **Emergency deliveries** form must be included with the delivery note and products and must be clearly visible on the pallet or container.

A special delivery of materials can also be authorised for a part-quantity in a delivery call-off schedule if defined by KOSTAL.

A special delivery without authorization and without the special delivery form will cause the delivery to be refused. Any costs arising from this will be charged to the party responsible.

3.6.3 Inspection reports

If non-approved deviations from the stipulations of this guideline and other applicable, documents occur KOSTAL or a service company authorized by KOSTAL will draw up an inspection report. This can include a description of the deviation, a description of the defect or (depending on the type of error) photographic documentation.

The inspection report is forwarded to the SUPPLIER with a request that the non-conformance shall be addressed by a corrective action. Any costs arising from the deviation will be charged to the party responsible.

In the case of a logistics inspection report KOSTAL expects feedback and advice of rectification within the specified time-frame, in an 8D report. The actions taken must be documented, complied with and reported to KOSTAL.

Each logistics inspection report leads to a deduction of points in the supplier assessment. Failure to respond within the defined time period will result in the point deduction being doubled.

3.6.4 Pre-production

As a general principle KOSTAL expects compliance with the full series production guidelines in the pre-production and production launch phases. KOSTAL sets out in the pre-production phase the framework conditions governing compliance with the operations and specifications already described (e.g., delivery plans with demand forecasts). The SUPPLIER must request a **deviation approval**

(AWG) for all deviations from the production process even in the pre-production and production launch phases. In particular, until a **PPAP (PPAP check-list)** is available, no delivery can be made without a **deviation approval (AWG)**.

If production packaging is not yet available deliveries must be made in pre-production packaging. The SUPPLIER must plan the packaging for pre-production deliveries. In this, product-specific requirements must be considered, to ensure that the quality of the product is not negatively affected during transport and storage.

As a general rule deliveries under pre-production status are not considered in the supplier assessment.

4 Appendix

4.1 Other applicable documents

KOSTAL packaging guideline (KPG)

Packaging data sheet

EDI guideline

EDI general commercial conditions

webEDI general commercial conditions

Purchasing conditions

Supplier assessment guideline

Logistics assurance agreement (LSV)

Consignment contract

Deviation approval (AWG)

Form: PPAP (PPAP check-list) / FB_7602-65-026

Form: Emergency deliveries

These documents can be inspected at www.kostal.com.