Appendix C

EDI Guideline

Supplier Guideline for

Electronic Data Interchange (EDI) and Packaging

- EDI for shipping invoice and transport data (VDA 4913)
- EDI goods receipt (VDA 4912)
- Material tag with barcode (VDA 4902)

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List of abbreviations

Fig.	Figure
EDI	Electronic Data Interchange
G-Label	Label for mixed loads
GLT	Big Load
HU	Handling Unit
KLT	Small Load
LAB	Delivery Schedule
M-Label	Master Label
OFTP	Odette-File-Transfer-Protocol
SLRN	Shipment Load Reference number
S-Label	Single Label
VDA	German Association of the Automotive Industry

1 General information on Electronic Data Interchange

The Electronic Data Interchange (EDI) allows an optimal coordination of the information flow between all business partners. All information about the company-wide business processes can be offered without loss of time and also in the case of increasing volume without extra workload.

In order for the advantage of electronic communication to be maximized, the information interchange must be integrated in the application systems. Due to the automated data transfer, new measures are necessary in order to assure an accurate flow. Moreover, automated plausibility tests, as well as a revision of the communication structures are needed. The electronic data interchange must be open to diverse application systems, transmission media and formats.

In the automotive industry, the electronic data interchange for receipts is implemented mainly through the Odette-File-Transfer-Protocol (OFTP) transmission protocol. The following message formats are used:

- VDA (recommended by the German Association of the Automotive Industry)
- Odette (European standard for the data interchange in the automotive industry, migrates to EDIFACT)
- EDIFACT (Global standard for EDI-messages in diverse branches)

All formats are graphic-oriented formats with segments structured hierarchically and centralized in groups. The VDA format is based on data fields with fixed lengths, the other formats are variable.

1.1 Scope of EDI Guideline

The EDI Guideline is valid for all locations of and any connected undertakings of the SMP group of companies pursuant to Section 15 of the German Stock Corporation Act and must be implemented for all sites supplied by the supplier. Contact persons of the individual sites for the EDI messages (VDA Standard), packaging planning and container management can be found in *Appendix 1*.

1.2 EDI Data Sheet

In order to define the agreement parameters for EDI with SMP, the supplier must forward the EDI data sheet to the respective contact person in the Purchase department within SMP.

1.3 Plants, unloading points and DUNS numbers

The overview on the SMP plants, unloading points and DUNS numbers are shown in *Appendix 2* and will be available in an updated version on the SMP internet site.

1.4 Packaging overview

Packaging is used in the supply process in order to be able to transport the goods to their destination without any damage. There are different types of containers, both standard and specific. The supplier receives guidelines concerning the packaging specifications, describing which article should be packed in which package with which capacity. In order to automatically identify each of the packages, SMP sets a package number. These package identifications must correspond to the SMP material number of the package. The SMP material number for standard packaging can be found in the Load Carrier Catalogue (= Ladungsträgerkatalog). In case of special or customized packaging please check the Packaging Data Sheet (P-40-35-F20) of the part or ask the responsible packaging planner of the receiving SMP plant.

1.5 Article Code

The SMP article code can have up to 18 alphanumeric digits. The current formats used by SMP are:

- 8-digits numeric
- 12-digit numeric
- x-digit alphanumeric

2 EDI of shipping invoice and transport data according to VDA 4913

The EDI for shipping invoice and transport data defines the electronic data interchange of shipping invoices and transport data between the suppliers and the clients and requires a high level of process quality. During this procedure, the data contained in the freight contract / shipping order, shipping invoice and goods receipt for each sending is edited by the supplier and transmitted to the client or receiver directly.

2.1 Allocation of shipping invoice data

The allocation of shipping invoice data via EDI must conform to VDA reference 4913, Version 04 (Edition V, 4 March 1996). When transmitting data, attention must be paid to the direct relationship between the plant coding, the unload point and the order number corresponding to the previous delivery schedule.

2.2 Punctual data transfer

Each delivery is announced through a notification via EDI. The data must lead the goods in time. The EDI must therefore be sent to the central SMP EDI system when the dispatch is prepared by the supplier. In order to observe on time and eliminate the flaws in the information process, the data must be sent so that an immediate adjustment can be made in case of a fault. The data must be sent to the receiver of the goods after the delivery at the latest.

2.3 Set-up phase for the EDI shipment invoice

The EDI shipment invoices will not be used in the SMP goods inward department during the test phase. As soon as the EDI processes have been set up, the EDI shipment invoices can be sent. Due to the fact that the EDI will first be sent to a test system, it is not necessary to generate specific test data; the sending of the productive data can start immediately. After the data check up in the test system, they are transferred to the productive system. During the set-up phase, the framework agreements must be adjusted, this adjustment can take place in one plant at a time.

2.4 Current operation of the EDI shipment invoice

2.4.1 Basic principles

The data quality obtained during the set-up phase, as well as the correct point in time for the data transfer must be guaranteed during the productive use of the EDI shipment invoice as well. In the productive use, all sending via the EDI shipment invoice must be announced. If this is not possible in exceptional cases, the SMP goods inward department must be informed first.
When the good are delivered, the EDI shipment invoices of the suppliers are activated in the SMP goods inward department. The shipment reference number (or transport number) is the key concept here. In case the EDI message is not available or has faults at this time, SMP must register the shipment and transport data manually. This manual registration is to be avoided; therefore the prompt transfer of the data from the supplier must be ensured. **The suppliers must make sure that each delivery to SMP is accompanied by an EDI goods receipt slip (VDA 4912) and a goods tag able to receive a bar code (VDA 4902).** Following this step, the physical shipment is checked for the compliance with the existing information. The scan of the barcode goods tag (VDA 4902) is part of the check-up. If deviations are noticed, a manual adjustment of the data must be made. **SMP reserves its rights to demand from the supplier additional work and expenses due to non-existing or incorrect (EDI) messages (VDA 4902, 4912, 4913).**

2.4.2 EDI adjustments and malfunctions

If content changes are necessary after the sending of the data, these changes must be communicated to SMP. Immediate notification must be made.

The supplier must take the proper measure in order to be able to resend an EDI. SMP expects the last three transfers per receiver to be able to be resend.

In exceptional cases it could happen that the shipment invoice data cannot be sent via EDI (e.g. special tour, computer breakdown, administration problems, reception problems etc.). SMP must immediately be informed if such a case arises.

2.5 Message structure

The message is described in detail in VDA reference 4913. SMP does not use any relevant special coding for the described fields.

SMP uses the following structure: for the record type 715 1 record per M label (pallet) followed by further 715 records for the S label (inner packaging) and 715 record types for the packaging aid. The division of the S labels is done according to the VDA reference. The packaging aid for the pallet follows the 715 record types of the pallet. The packaging aid for the inner packaging follows on the last 715 record of the inner packaging.

The correct packaging structure conforming to the described rules for each message format must be observed. The packaging structure will be checked by SMP when the message is received. Special attention needs to be paid to the identification of the individual packages (= Handling Units, HU). A unique identification (package number) must be given to each package of the inner and exterior packaging (KTL and GTL).

2.6 Use and description of the record types

The length of the individual records in the VDA message 4913 always consists of 128 digits.

Record type	Description	Must/ Conditional
711	Header shipment invoice and transport data Version 03, 1 x per EDI operation	Must
712	Unique data elements of the transport Version 03, 1 x per sending	Must
713	Unique data elements of the shipment invoice (header data for shipment invoice) Version 03, 1 x per shipment invoice	Must
714	Shipment invoice position data Version 03, 1 x per shipment invoice	Must
715	Packaging data Version 03	Must
716	Text data on the position Version 02	Must
717	Individual packing piece data on position Version 01, 1 x per packing piece	Conditional
718	Data on the production numbers Version 02	Conditional
719	Trailer shipment invoice and transport data	Must

	Version 02, 1 x per EDI operation	

The specific notices at the end of each chapter must be observed when describing the record type!

2.6.1 Record type 711

The record type 711 identifies the partner and defines the purpose of the interchange.

Pos	Data element	K M	Lg. Byte	A N	from	to	Verbal description
01	Record type	M	3	N	1	3	Constant '711'
02	Version number	M	2	N	4	5	Constant '03'
03	Data receiver number	M	9	A	6	14	Number given by the data sender (here: supplier) to the data receiver (SMP). Not processed by SMP.
04	Data sender number / Supplier number	M	9	A	15	23	Number given by the data receiver (SMP) to the supplier. Left-aligned, 8-digits + a blank (will be transmitted during the delivery schedule according to VDA 4905 in the record type 511, field 04).
05	Old transmission number	M	5	N	24	28	Transmission number per EDI operation 5-digits, with zeros in front.
06	New transmission number	M	5	N	29	33	Transmission number per EDI operation 5-digits, with zeros in front.
07	Transmission date	M	6	N	34	39	Form: YYMMDD
08	Subcontractor number	K	9	A	40	48	Number given by the client to the subcontractor. Not processed by SMP.
09	Freight carrier number	K	9	A	49	57	Number given by the client to the freight carrier (only with the VDA 4920 reference). Not processed by SMP.
10	Stock keeper code	K	1	A	58		Stock keeper code (encoded). Not processed by SMP.
11	Delivery identification	K	1	A	59		The use is to be defined bilaterally (encoded). Not processed by SMP.
12	Empty	M	69	A	60	128	Filled in with blanks.
							K = Kann, Conditional M = Muss, Mandatory A = Alphanumeric N = Numeric

2.6.2 Record type 712

The record type 712 describes the unique data elements of the transport.

Pos	Data element	K M	Lg. Byte	A N	from	to	Verbal description
01	Record type	M	3	N	1	3	Constant '712'
02	Version number	M	2	N	4	5	Constant '03'
03	Sending freight reference number	M	8	N	6	13	Reference numbers given by the dispatcher to the sending / freight / transport; right-aligned entry with lead zeros. Repeating the numbers during a year is not allowed.
04	Plant supplier	K	3	A	14	16	The plant of the supplier which sends the goods. Not processed by SMP.
05	Freight carrier	M	14	A	17	30	Name/Number of the freight carrier. Not processed by SMP.
06	Freight carrier transfer date	M	6	N	31	36	The date of the sending transfer to the freight carrier. Not processed by SMP.
07	Freight carrier time of transfer	M	4	N	37	40	Time of sending transfer to the freight carrier. Not processed by SMP.
08	Gross weight of the sending	M	7	N	41	47	Gross weight of the goods. Not processed by SMP.
09	Net weight of the sending	K	7	N	48	54	Net weight of the goods. Not processed by SMP.
10	Freight code	K	2	N	55	56	Defines who pays the freight costs and to which extent. Not processed by SMP.
11	Carrier EDI code	K	1	A	57		Carrier EDI code. Not processed by SMP.
12	Number of package pieces	K	4	N	58	61	The sum of all sending pieces included in the package. Not processed by SMP.
13	Transport Partner number	K	14	A	62	75	Number of the area contract freight carrier. Not processed by SMP.
14	Means of transport code	M	2	N	76	77	Code for the means of transport. Not processed by SMP.
15	Means of transport number	M	25	A	78	102	The number of the means of transport. Not processed by SMP.
16	Code for pos. 17	K	1	A	103		Not processed by SMP.

Pos	Data element	K M	Lg. Byte	A N	from	to	Verbal description
17	Content conforming with code in pos. 16	K	8	A	104	111	Not processed by SMP.
18	Arrival date - target	M	6	N	112	117	Date set by the client for the arrival of the sending. Form: YYMMDD.
19	Arrival time - target	K	4	N	118	121	Time set by the client for the arrival of the sending. Form: HHMM. Not processed by SMP.
20	Loading meter	K	3	N	122	124	Indication of the occupied meters in the loading area. Not processed by SMP.
21	Code for the type of truck	K	1	N	125		Encoded. Not processed by SMP.
22	Empty	M	3	A	126	128	Filled in with blanks.
							K = Kann, Conditional A = Alphanumeric M = Muss, Mandatory N = Numeric

2.6.3 Record type 713

Record type 713 describes unique data elements of the shipment invoice (shipment invoice header) and contains the shipment invoice number, the unloading point etc.

Pos	Data element	K M	Lg. Byte	A N	from	to	Verbal description
01	Record type	M	3	N	1	3	Constant '713'
02	Version number	M	2	N	4	5	Constant '03'
03	Shipment invoice number	M	8	N	6	13	Reference numbers given by the supplier to the shipment invoice; right-aligned entry with lead zeros. Repeating the numbers during a year is not allowed.
04	Delivery date	M	6	N	14	19	Form: YYMMDD
05	Unloading point	M	5	A	20	24	The unloading point must be communicated according to the details in EDI delivery schedule (VDA 4905, record type 512, field 11); left-aligned entry.
06	Type of dispatch	M	2	N	25	26	Type of dispatch (encoded). Not processed by SMP.
07	Client reference (LAB)	K	4	A	27	30	The client reference in the delivery schedule (VDA 4905, record type 512, field 12). Not processed by SMP.

Pos	Data element	K M	Lg. Byte	A N	from	to	Verbal description
08	Closing- / order number	M	12	A	31	42	Closing - / order number. Communicated in the EDI delivery schedule (VDA 4905, record type 512, field 10), 10-digit, with “55“ in front, left-aligned entry.
09	Transaction code	K	2	N	43	44	Only with EDL use. Not processed by SMP.
10	Empty 1	M	4	A	45	48	Empty field, filled in with blanks.
11	Client plant	M	3	A	49	51	The client plant to which delivery should be made. Encoded name of the client. Should be communicated according to the details in the EDI delivery schedule (VDA 4905, record type 512, field 03).
12	Consignment	K	8	N	52	59	Consignment. Not processed by SMP.
13	Number of receiver	K	9	A	60	68	Not processed by SMP.
14	Empty 2	M	1	A	69		Empty field, filled in with blanks.
15	Client’s storage location	M	7	A	70	76	The storage location of the client, additional to the unloading point, will be communicated in the EDI delivery schedule (VDA 4905, record type 512, field 19), left-aligned entry.
16	Supplier number	M	9	A	77	85	Not processed by SMP.
17	Point of consumption	K	14	A	86	99	Point of consumption. Not processed by SMP.
18	Call Off Number	K	4	A	100	103	Call Off Number. Not processed by SMP.
19	Client reference	K	6	A	104	109	Detail from the individual order. Not processed by SMP.
20	Client’s document number	K	14	A	110	123	Not processed by SMP.
21	Empty 3	M	5	A	124	128	Empty field, filled in with blanks.
							K = Kann, Conditional M = Muss, Mandatory A = Alphanumeric N = Numeric

Note:

Field: Unloading point (Pos. 05) – the entry must conform with the current order (delivery schedule and short term call off); left-aligned. The unloading point at SMP has 4 or 5 digits (see also Chapter 1.2).

Field: Closing- / Order number (Pos. 08) – EDI dispatch notices are to be sent only for materials included in a frame contract (10-digit closing - and order number respectively with „55“ in front), i.e., no dispatch notice for „45-individual orders“.

Field: Client Plant (Pos. 11) – The entry must conform with the current order (delivery and short term call off schedule respectively). SMP uses a 3-digit plant description (see also Chapter 1.2).

2.6.4 Record type 714

The record type 714 describes the shipment invoice positions (articles and delivered quantity).

Pos	Data element	K M	Lg. Byte	A N	from	to	Verbal description
01	Record type	M	3	N	1	3	Constant '714'
02	Version number	M	2	N	4	5	Constant '03'
03	Article code client	M	22	A	6	27	Number assigned by the client to an article, included in the EDI delivery schedule (VDA 4905, record type 512, field 08), left-aligned entry followed by blanks.
04	Article code supplier	M	22	A	28	49	Number assigned by the supplier to an article. Not processed by SMP.
05	Country of origin	M	3	N	50	52	Country of origin. Not processed by SMP.
06	Delivery quantity 1	M	13	N	53	65	Delivery quantity in the quantity unit of the delivery schedule, right-aligned with zeros in front, 3 decimals.
07	Quantity unit 1	M	2	A	66	67	ST = Piece KG = Kilogram L = Liter M = Meter
08	Delivery quantity 2	K	13	N	68	80	If applicable, delivery quantity in the quantity unit of the supplier, right-aligned with zeros in front, 3 decimals.
09	Quantity unit 2	K	2	A	81	82	See position 07.
10	VAT rate	K	3	N	83	85	VAT rate. Not processed by SMP.
11	Empty 1	K	1	A	86		Empty (filled in with one blank).
12	Position number shipment invoice	M	3	N	87	89	Position of shipment invoice, right-aligned entry with zeros in front and no decimal.
13	Demand code	K	1		90		Not processed by SMP.
14	Batch number	K	15	A	91	105	Identification number assigned by the supplier to a batch. Necessary only with articles „handled in batches", otherwise empty (filled in with blanks). If delivery is made in several batches, a separate shipment invoice position is to be filled in for every batch including the number of batches and the batch number.
15	Use code	M	1	A	106		Use code (encoded). Not processed by SMP.
16	Code for hazardous materials	K	8	A	107	114	Code for hazardous materials. Not processed by SMP.

Pos	Data element	K M	Lg. Byte	A N	from	to	Verbal description
17	Preference status	M	1	A	115		Preference status (encoded). Not processed by SMP.
18	Customs goods	M	1	A	116		Customs goods (encoded). Not processed by SMP.
19	Empty 2	M	1	A	117		Empty (filled in with a blank).
20	Stock status	M	1	A	118		Stock status (encoded). Not processed by SMP.
21	Changed dispatch code	M	2	A	119	120	Changed dispatch code (encoded). 1. digit Not processed by SMP. 2. digit Blank = no entries T = must be copied to the record type 716, pos. 03 of the construction update status.
22	Origin shipment invoice number	K	8	A	121	128	Filled in with blanks. Not processed by SMP.
							K = Kann, Conditional M = Muss, Mandatory A = Alphanumeric N = Numeric

2.6.5 Record type 715

The record type 715 describes the package data and the connection between the EDI shipment invoice and the VDA. The EDI and the label must match since the content of the EDI is checked by scanning the bar code.

Pos	Data element	K M	Lg. Byte	A N	from	to	Verbal description
01	Record type	M	3	N	1	3	Constant ‘715’
02	Version number	M	2	N	4	5	Constant ‘03’
03	Package number client	M	22	A	6	27	Identification numbers assigned by the client to a package. Package numbers used by SMP always have a „P“ in front, are left-aligned and are followed by blanks. Exception: „BEIP0“ in separate packaging
04	Package number supplier	M	22	A	28	49	Identification number assigned by the supplier to the package.
05	Number of packages	M	13	N	50	62	Number of packages by type. Right-aligned entry with zeros in front, no decimals.

Pos	Data element	K M	Lg. Byte	A N	from	to	Verbal description
06	Position number shipment invoice	M	3	N	63	65	This field should contain the position number of the record type 714 which refers to the package. Right-aligned entry with zeros in front. If the package refers to all the positions of the preceding shipment invoice number (record type 714), three zeros must be added to the entry.
07	Capacity	M	13	N	66	78	Actual amount of article codes in the package; right-aligned with zeros in front, 3 decimals. Quantity in the quantity unit according to record type 714, position 07.
08	Package number from	M	9	A	79	87	The number must not be repeated within a year. Left-aligned entry with no leading Zeros and if applicable is filled in with blanks. The packages receive no package numbers. This field is filled in with blanks.
09	Package number to	K	9	A	88	96	If this element is used, the number sequence between „Package number from „Package number to“ must increase numerically with no gaps. Left-aligned entry with no leading Zeros and if applicable is filled in with blanks.
10	Package dimensions	K	12	N	97	108	Details in millimetres 97 – 100 length 101 – 104 width 104 – 108 height Information not processed by SMP.
11	Stacking factor	K	1	N	109		Information not processed by SMP.
12	Stock call-off number	K	15	A	110	124	Information not processed by SMP.
13	Label identification	M	1	A	125		Bar code identification of the goods tag (VDA 4902). Valid entry: **G** = Mixed packages (with sub-packages and different article codes). **M** = **M**aster Label (with sub-packages and same article codes) **S** = **S**ingle Label (1 package) = Blank for the packages such as lid, underliner or empty KLT (for stabilization). Packaging aids have no numbers or goods tags.
14	Packaging identification	K	1	A	126		Information not processed by SMP.
15	Ownership identification	K	1	A	127		Information not processed by SMP.
16	Empty	M	1	A	128		Filled in with a blank.
							K = Kann, Conditional M = Muss, Mandatory A = Alphanumeric N = Numeric

Note:
The packaging record must be sent. Depending on the packaging structure, several packaging records may have to be transmitted for each position record (SA 714). The preparation of the packaging record is described in detail in Chapter 2.7. The connection to the goods tag VDA 4902 is also described.

Field: Capacity (Pos.07) – The capacity of the package must be shown depending on the use of the packaging aids (inner / exterior packaging, packaging aid, etc.). Chapter 2.7.4 describes diverse packaging examples and their representation in the record types 713 – 715.

Field: Package number-Number from (Pos.09) – this field must be sent to SMP (different from the Can-clause in the VDA instruction). This entry is needed for the tracing of the package from sender to destination and must match the goods tag conforming with VDA 4902.

2.6.6 Record type 716

The record type 716 describes the text data for a position.

Pos	Data element	CM	Lg. Byte	AN	from	to	Verbal description
01	Record type	M	3	N	1	3	Constant '716'
02	Version number	M	2	N	4	5	Constant '02'
03	Text 1	M	40	A	6	45	Text field to be used for unformatted information. If a T is entered in the record type 714, pos. 21, the construction update status must be entered (left-aligned).
04	Text 2	M	40	A	46	85	Best before date, assigned by the supplier to the material with limited storage life. Necessary only for the materials with limited storage life, otherwise empty (filled in with blanks). The following date formats are allowed: - DD.MM.YYYY - DD.MM.YY
05	Text 3	K	40	A	86	125	Text field which can be used for transmitting the unformatted information.
06	Empty	K	3	A	126	128	Filled in with blanks.
							K = Kann, Conditional M = Muss, Mandatory A = Alphanumeric N = Numeric

2.6.7 Record type 717

The record type 717 describes the unique package record for a position. Can-record, used only with EDL transactions and not processed by SMP.

2.6.8 Record type 718

The record type 718 describes the production number data. Can-record, not used by SMP.

2.6.9 Record type 719

The record type 719 describes trailer record of the shipment invoice and transport data and contains statistics on the transmission.

Pos	Data element	C M	Lg. Byte	A N	from	to	Verbal description
01	Record type	M	3	N	1	3	Constant '719'
02	Version number	M	2	N	4	5	Constant '02'
03	Counter record type 711	M	7	N	6	12	Number of transmitted record types 711. Right-aligned entry with zeros in the front.
04	Counter record type 712	M	7	N	13	19	Number of transmitted record types 712. Right-aligned entry with zeros in the front.
05	Counter record type 713	M	7	N	20	26	Number of transmitted record types 713. Right-aligned entry with zeros in the front.
06	Counter record type 714	M	7	N	27	33	Number of transmitted record types 714. Right-aligned entry with zeros in the front.
07	Counter record type 715	M	7	N	34	40	Number of transmitted record types 715. Right-aligned entry with zeros in the front.
08	Counter record type 716	M	7	N	41	47	Number of transmitted record types 716. Right-aligned entry with zeros in the front.
09	Counter record type 718	M	7	N	48	54	Number of transmitted record types 718. Right-aligned entry with zeros in the front.
10	Counter record type 719	M	7	N	55	61	Number of transmitted record types 719. Right-aligned entry with zeros in the front.
11	Counter record type 717	M	7	N	62	68	Number of transmitted record types 717. Right-aligned entry with zeros in the front.
12	Empty	M	60	A	69	128	Empty, filled in with blanks.
							K = Kann, Conditional M = Muss, Mandatory A = Alphanumeric N = Numeric

2.7 Visualization of packages in transport and delivery data

For an efficient collection of the delivered goods the supplier must add material tags to all the packages in a delivery. Further information on the material tag conform with VDA 4902 can be found in Chapter 4 of this guideline.

At SMP's incoming goods station, packages without sub-packages are individually recorded by scanning the material tag. For packages with sub-packages (handling units), only the main material tag (external packaging) will be scanned and recorded. All the other packages belonging to this handling unit will be referred to using its package number. A correct visualization of the packaging information in the EDI shipment invoice conforming with VDA 4913 is required. If the packaging reference numbers are used for products in the same containers with standard filling quantity it is advisable to use the "Package number from – to" labelling (see VDA 4913, record type 715, positions 08 and 09). This is only available for packages with the label "S". In this way, the volume of the data to be recorded is reduced.

In the VDA 4913 visualization, the following logic in the record type 715 is to be followed when preparing the packaging structure in order to allow the assignment of the delivery units (numbers) to the loading unit (handling unit) or the identification of simplified loading units (single packing pieces).

The delivery entrance is usually recorded for all packages (incl. Packaging aids) which must be recorded in returnable packaging accounts. The quantities recorded in the EDI (number of packages, record type 715, pos. 05) must match the actually delivered quantities.

2.7.1 Visualization of simplified loading units (Individual Packages)

Single or individual packages are packages with no sub-packages. The description must include the label or package reference “S”, the number of packages, the filling quantity per package, and a unique number of packages (for each package).

If several packages have the same article number, a new record 715 must be created for the package if the type of package changes or the filling quantity is different or the sequence of package number is interrupted.

2.7.2 Visualization of loading units sorted by article (Master Packages)

Correctly sorted handling units consist of exterior packaging – a base support (e.g. Euro-flat pallet or cage pallet), the internal packages – small load carrier or delivery units with same content (same reference number) and maybe loading devices such as lids, mats or form inlays. Each Master loading unit must be individually visualized.

The first 715 record of a handling unit describes the packaging carrier and contains the label “M”, the number of packages (= 1), the filling quantity (= null) and the package number.

The description of individual packages is valid for the small load carrier. Label or package identification “S“, number of packages, the filling quantity and a clear package number (for each package).

The 715 record for package aids contains no package identification and no number of packages, only the number of packaging aids for each type > 0 and the filling quantity (= null).

2.7.3 Visualization of Mixed Packages

Mixed packages consist of an external packaging, i.e. a base carrier (e.g. Euro-flat pallet or cage pallet), the internal packages – the load carrier (e.g. small load carrier) with different material number and extra packaging aid such as lid or inlays. Each package must be individually visualized.

The first 715 record of a handling unit describes the packaging carrier and contains the label “G”, the number of packages (= 1), the filling quantity (= 0) and the package number.

After the load carrier, both 715 records for the delivery units as well as for the packaging aids assigned to the load carrier can follow. The individual packages description (see 2.7.1) is valid for the delivery units in the mixed packages. The 715 record contain the label or package identification “S”, the number of containers > 0, the filling quantity for each container and a unique package number pro container. If the article number is the same, but the packaging type and filling quantities are different or if the package number sequence is interrupted, a separate 715 record must be created.

The 715 record for a packaging in mixed packages contains no label and no package number; the number of packaging aids for each type is > 0, with a filling quantity > 0.

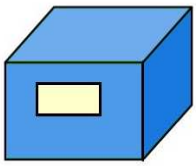
After each article number change within a package, the 715 record for the load carrier must be repeated. The repeating record for the load carrier contains the label “G”, the number of packages (= 0 as repeating label), the filling quantity (= 0) and the package number from the first 715 record for the load carrier of the delivery. The description of the individual packages is valid for the other delivery units in the mixed package after the repeating record for the load carrier (see 2.7.1).

2.7.4 Description of separate packaging in mixed loading units

By separate packaging, one understands a quantity of article, which is often reconciled without standard packaging in a delivery unit. Separate package in a simplified loading unit is described as delivery unit in a mixed loading unit. Separate package in a mixed loading unit cannot be accurately described due to lack of structuring capabilities in the VDA 4913. The 715th kit for separate packaging must follow directly the 715th packaging container of loading unit (packing kit identification number ‘‘S‘‘), which has been reconciled in separate packaging. Customer must be entered „BEIP0“ as a packaging material number. For separate packaging, the description of individual packaging is essential. Therefore, the 715th kit contains the package identification ‘‘S‘‘, the number of containers ‘‘ separate packaging‘‘ > 0, capacity of each ‘‘separate packaging‘‘ and contain a clear package number for each packaging.

2.7.5 Packaging examples and their visualization in EDI messages

Legend of the packaging examples

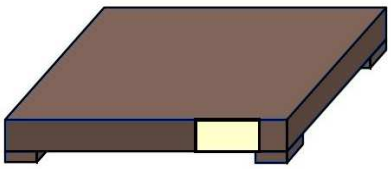


Internal Packaging or delivery unit: a package (packaging aid) without sub-packaging.

Load carrier

The article is in "contact" with the internal packaging.

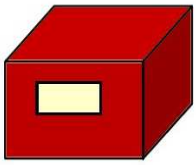
Simplified loading unit: is an exception to the delivery unit / internal packaging, the external packaging is missing.



External packaging: A packaging aid to carry the sub-packages / delivery units – but with no further external packages.

Package carrier

The external packaging and the delivery units make a **delivery unit**.



Logical packaging intermediate layer: a package with sub-packaging and more external packaging. The intermediate layer is an **external packaging**, since the article is not in contact with the inner packaging.

Lid and intermediate layer:
A packaging aid for physical protection, as closure for the delivery unit, stacking aid and/or to stabilize diverse small load carriers.

Legend of the data elements in the record types

SA713 Shipment invoice number,
shipment invoice date,
unloading point,

SA714 Article number (reference number),
quantity,
position of shipment invoice,
order number,
batch number

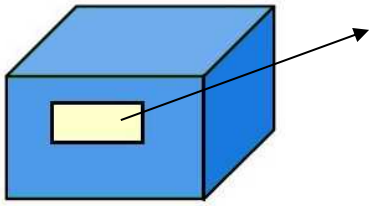
SA715 Package type,
Package identification,
Number of packages,
Position of shipment invoice,
Capacity,
Package number from,
Package number to,
Package reference (M, G, S)

2.7.5.1 Simplified loading unit small load (KLT)

Article number
36190609

Packaging
1x P6414

Filling Quantity
1x 108



Package identification
VDA Package number
S 1001

Record type			No. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190609				108			
		715		1		KLT	P6414	1	108	1001		S

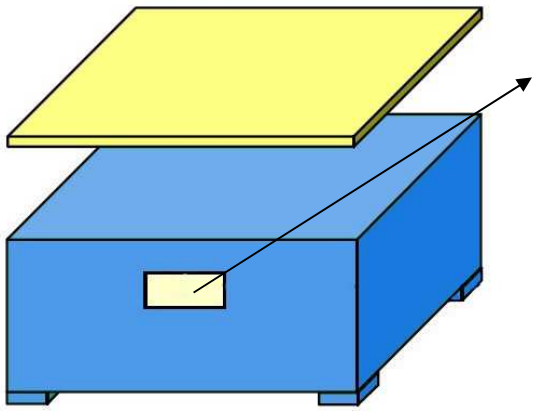
2.7.5.2 Simplified loading unit big load (GLT)

For example cage pallet with lid

Article number
36190610

Packaging
1x P5756
1x P1208

Filling Quantity
1x 20



Package identification
VDA Package number
S 1006

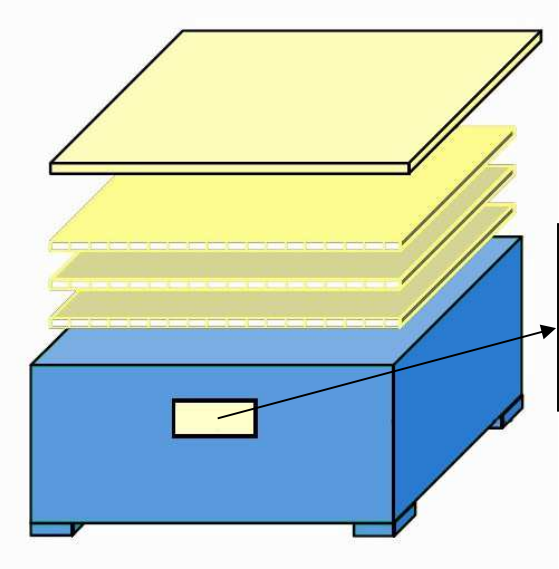
Record type			No. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190610				20			
		715		1		GLT	P5756	1	20	1006		S
		715		1		Lid	P1208	1	0			

2.7.5.3 Simplified loading unit big load (GLT) with intermediate layers

Article number
36190611

Packaging
1x P110848
3x POBM4802
1x P1208

Filling Quantity
1x 80

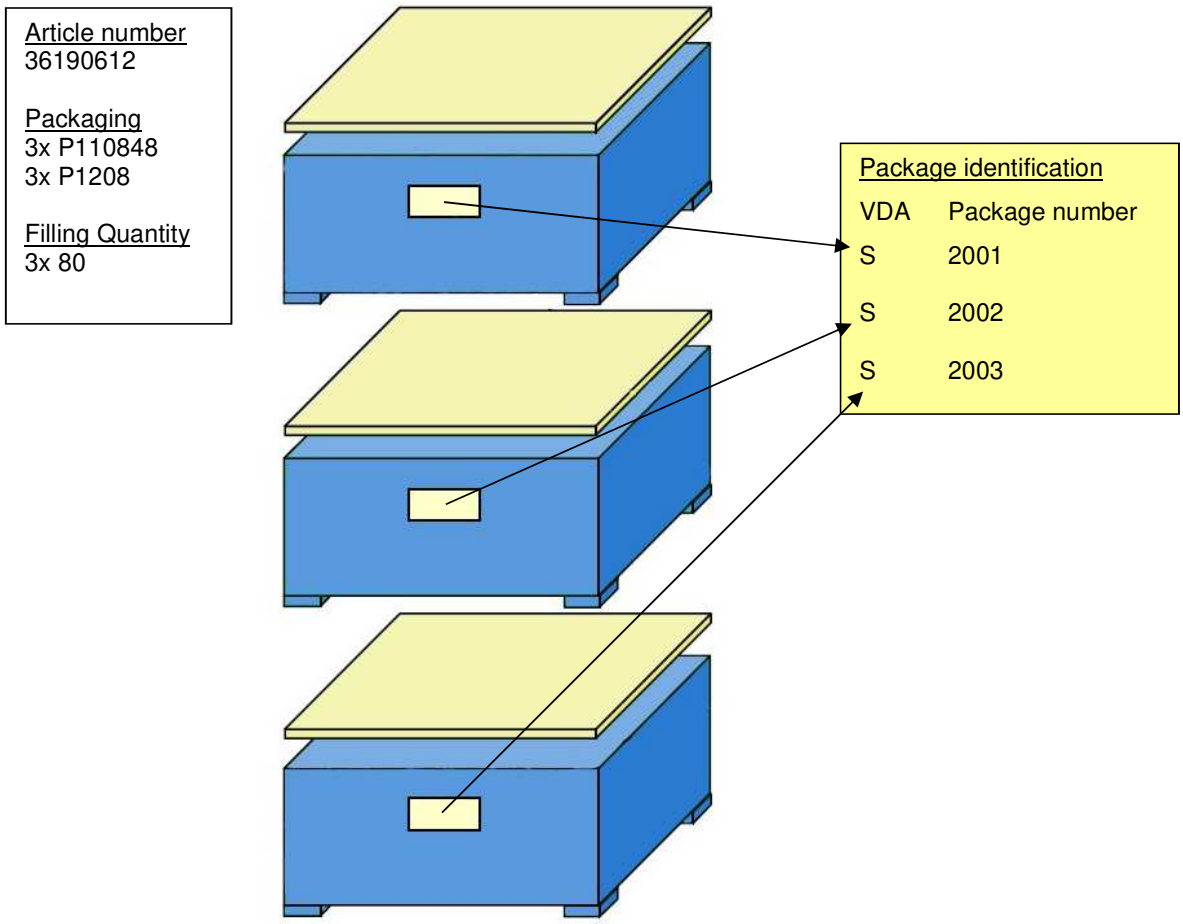


Package identification

VDA	Package number
S	1006

Record type			Nr. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190611				80			
		715		1		GLT	P110848	1	80	1006		S
		715		1		Lid	P1208	1	0			
		715		1		Interm. layer	POBM4802	3	0			

2.7.5.4 Shipping unit with three simplified loading units big load (GLT), same packaging, same filling quantity



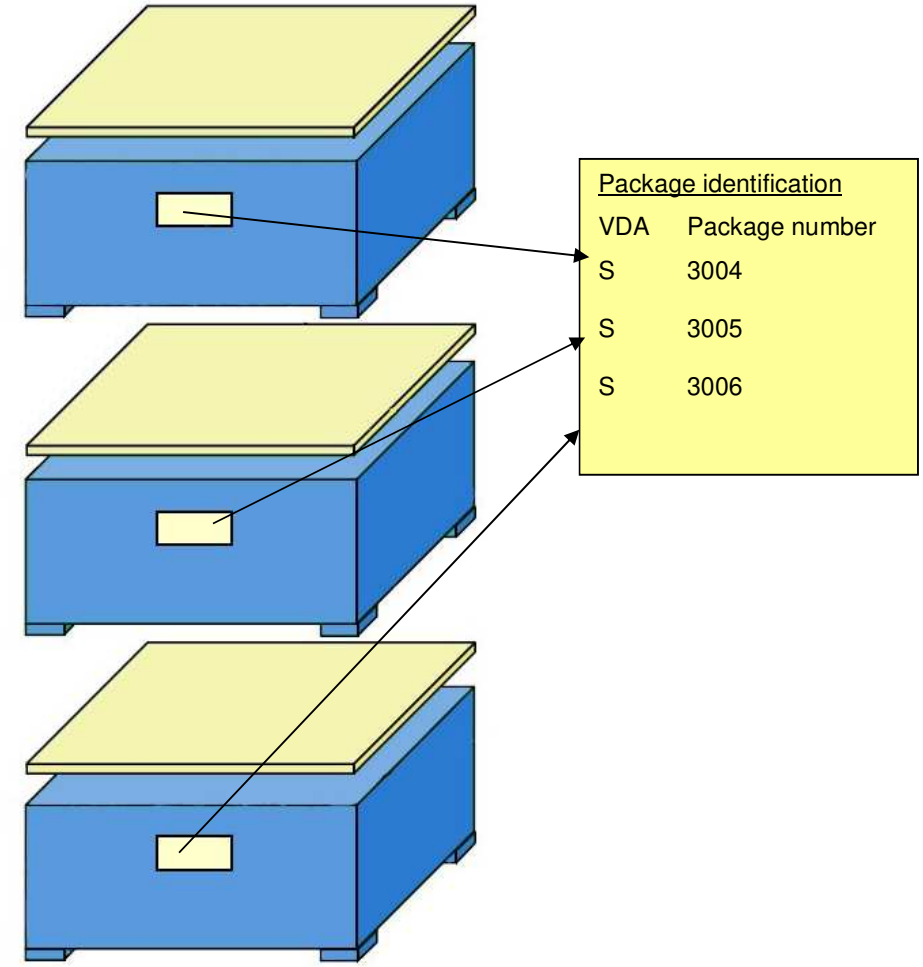
Record type			No. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190612				240			
		715		1		GLT	P110848	3	80	2001	2003	S
		715		1		Lid	P1208	3	0			

2.7.5.5 Shipping unit with three simplified loading units big load (GLT), same packaging, different filling quantity

Article number
36190613

Packaging
3x P110848
3x P1208

Filling Quantity
2x 120
1x 90



Record type			No. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190613				330			
		715		1		GLT	P110848	2	120	3004	3005	S
		715		1		GLT	P110848	1	90	3006		S
		715		1		Lid	P1208	3	0			

The package number relationship “from – to“ may be used only for identical article numbers, packaging type and **filling quantity** (capacity).

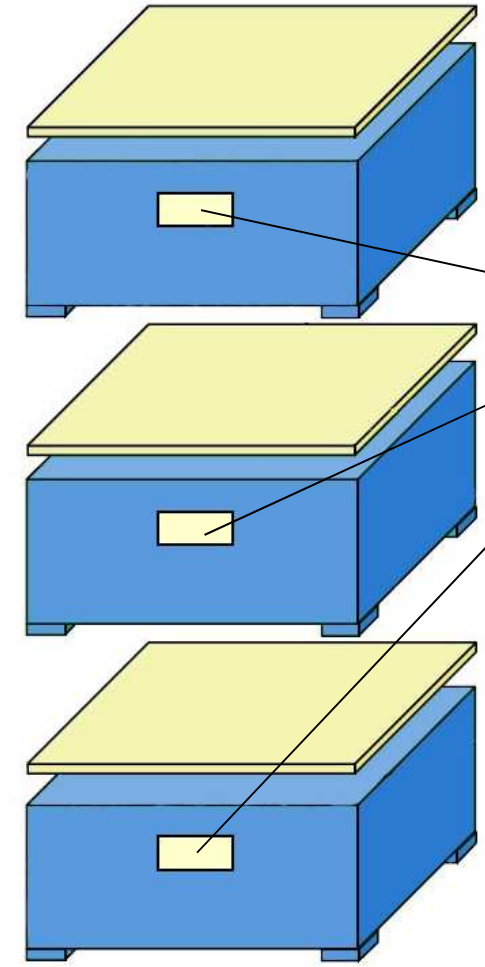
2.7.5.6 Shipping unit with three simplified loading units big load (GLT), same packaging, same filling quantity, different batches

Article Number
36190614

Packaging
3x P110848
3x P1208

Batch Number
CN001
CN002

Filling Quantity
3x 120



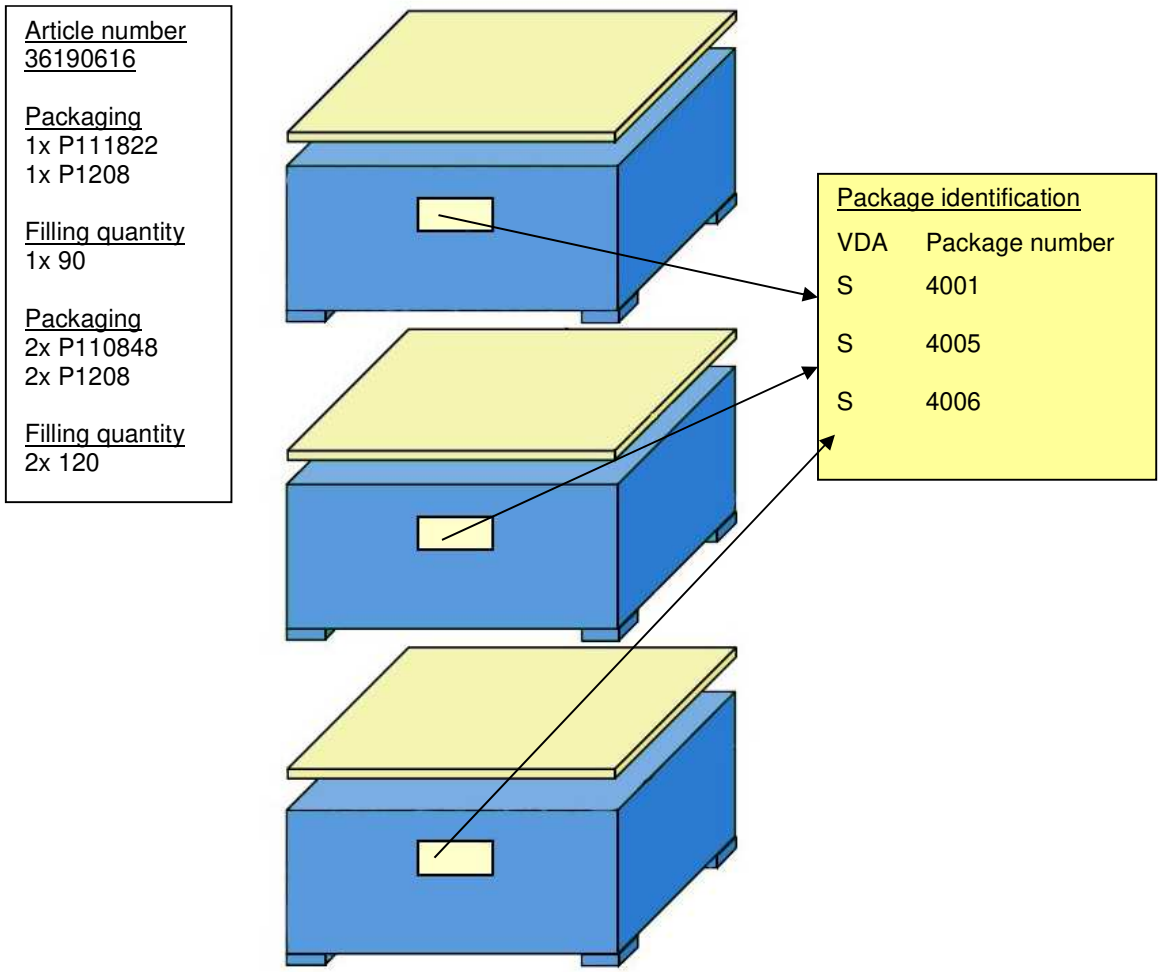
Package identification

VDA	Package number
S	23004
S	23005
S	23006

Record type			No. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190614 CN001				240			
		715		1		GLT	P110848	2	120	23004	23005	S
		715		1		Lid	P1208	2	0			
	714			2	36190614 CN002				120			
		715		2		GLT	P110848	1	120	23006		S
		715		2		Lid	P1208	1	0			

If the batch numbers are different within a shipping unit (or in a loading unit), every batch must be given a shipment invoice position which consists of a 714 record and the associated 715 records. The entire delivery quantity must be distributed over individual shipment invoice positions.

2.7.5.7 Shipping unit with three simplified loading units big load (GLT), different packaging, different filling quantity



Record type			No. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190616				330			
		715		1		GLT	P110848	2	120	4005	4006	S
		715		1		GLT	P111822	1	90	4001		S
		715		1		Lid	P1208	3	0			

Packaging records with package numbers and label identification “S” may be combined only under the following conditions (see for example 2.7.4.4):

- same article number
- same package type
- identical filling quantity
- package numbers are numeric and increasing with no interruptions

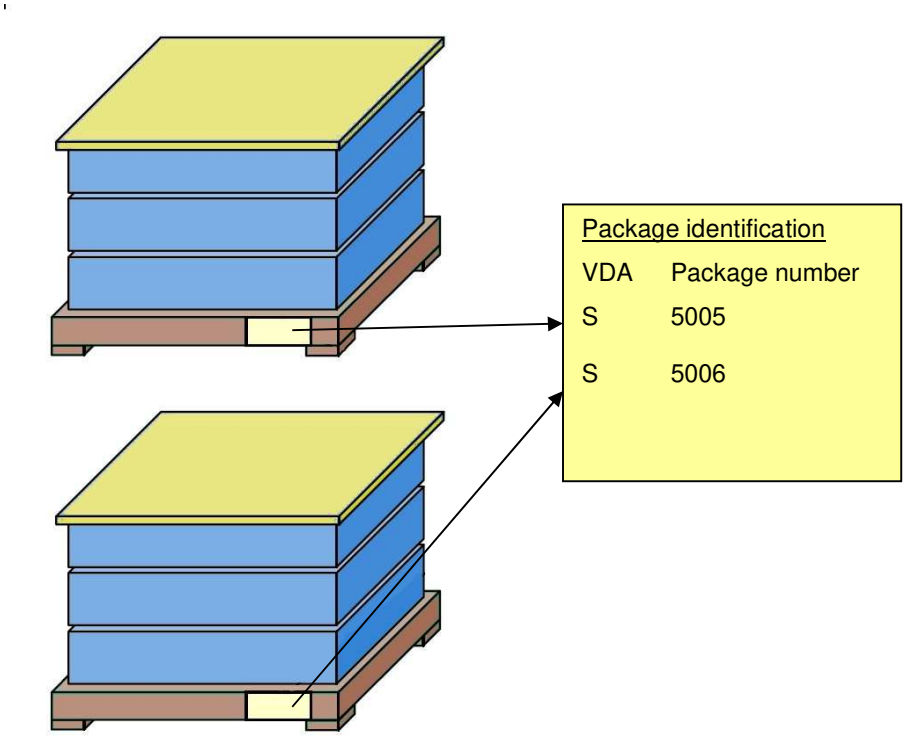
2.7.5.8 Shipping unit with two loading units, pallets (each with three shelves)

Article number
36190617

Packaging
2x P1208
6x P110810
2x PDB011

Filling quantity

2x 108 oder
6x 36



Record type			No. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190617				216			
		715		1		Pallet	PDB011	2	108	5005	5006	S
		715		1		GLT	P110810	6	0			
		715		1		Lid	P1208	2	0			

If simplified loading units with packaging aids (e.g. inlays on a base pallet) are delivered, they must be listed after the packaging record for the pallet (with package number and label “S”, since only one material tag per loading unit is used), in order to assign the book entry for the packaging aid.

The packaging P110810 is an aid frame with bottom, similar to the one used when packing headlights. It should be described as a lid in the packing structure. In this example, the package numbers 5005 and 5006 are assigned to the filling quantity (108) and the package numbers of the two pallets PDB011 (as load carrier). Both loading units 5005 and 5006 constitute a sending unit. The packaging must be fully stocked by the receiver.

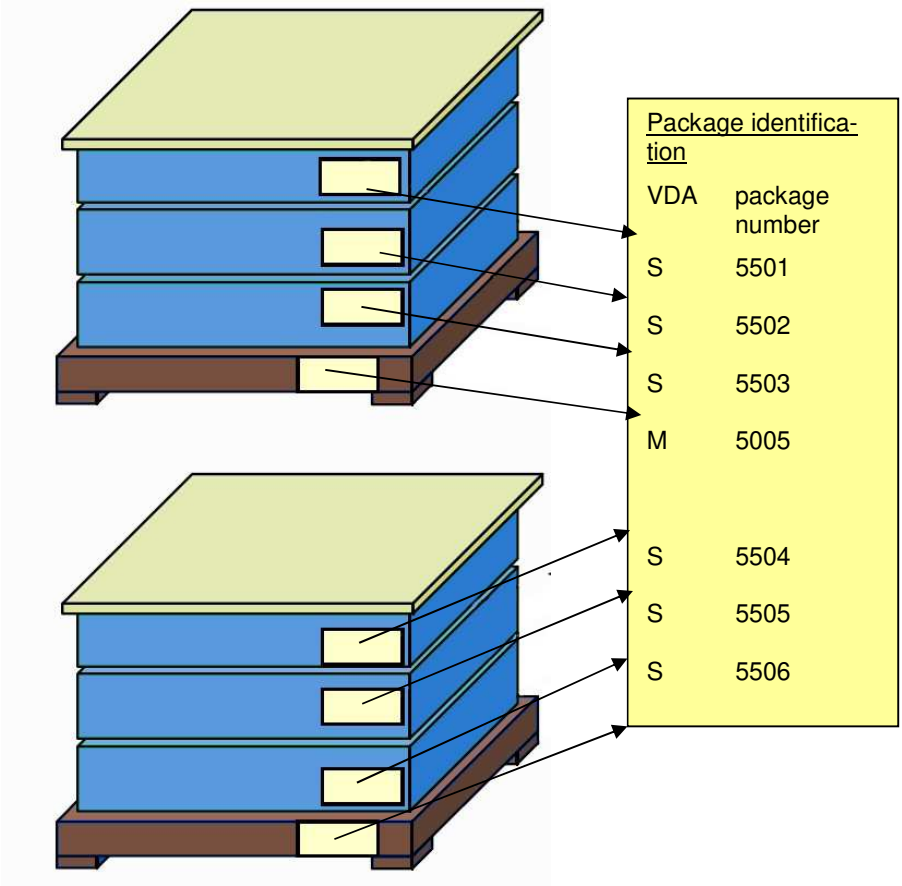
Whether visualization type format 2.7.4.8 or 2.7.4.9 is to be selected is to be agreed with each receiver plant!

2.7.5.9 Shipping unit with two loading units as containers sorted by article, pallets (each with three shelves)

Article number
36190618

Packaging
2x P1208
6x P110810
2x PDB011

Filling quantity
2x 108 oder
6x 36



Record type			No. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190618				216			
		715		1		Pallet	PDB011	1	0	5005		M
		715		1		Lid	P1208	1	0			
		715		1		GLT	P110810	3	36	5501	5503	S
		715		1		Pallet	PDB011	1	0	5006		M
		715		1		Lid	P1208	1	0			
		715		1		GLT	P110810	3	36	5504	5506	S

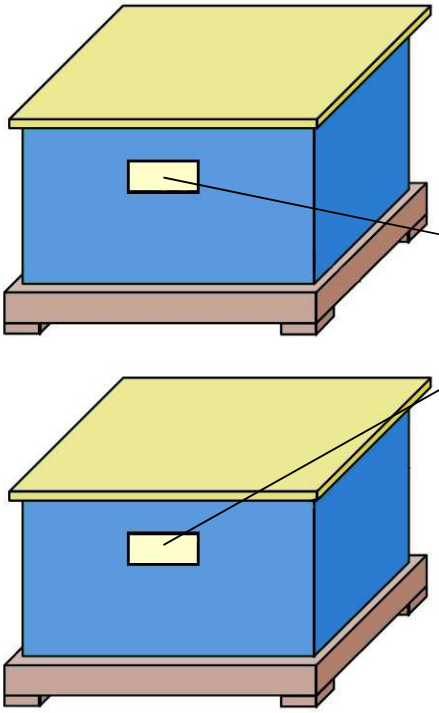
The packaging structure is shown here as single material packaging (loading unit) with package numbers (M label) on the inlays. This visualization may be necessary if the packaging is not stocked entirely by the receiver, but taken apart before being stored.

2.7.5.10 Shipping unit with two loading units, pallets (each with one single container)

Article number
36190619

Packaging
2x P1208
2x P110848
2x PDB011

Filling quantity
2x 300



Package identification

VDA	Package number
S	6005
S	6006

Record type			Nr. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190619				600			
		715		1		GLT	P110848	2	300	6005	6006	S
		715		1		Pallete	PDB011	2	0			
		715		1		Lid	P1208	2	0			

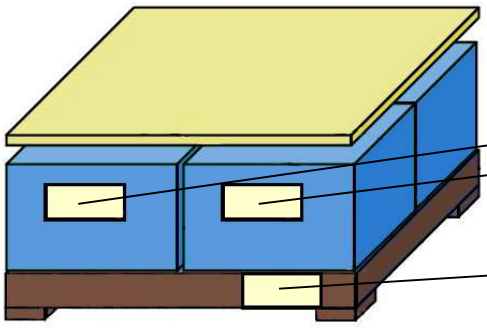
The main packaging aid in this packing example is Packaging P110848 (container) to which the package numbers has been assigned. The pallet is used as packaging aid.

2.7.5.11 Loading unit with one container, sorted by article, inner packaging small load (KLT) with label, same packaging, same filling quantity

Article number
36190622

Packaging
1x P1208
4x P6428
1x PDB011

Filling quantity
4x108



Package identification

VDA	Package number
S	8005
S	8006
S	8007
S	8008
M	8102

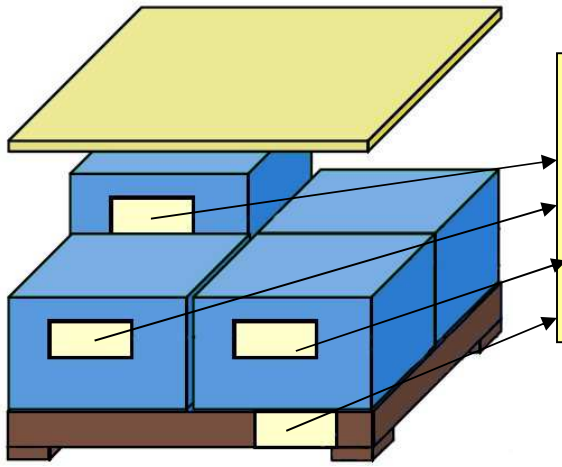
Record type			No. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190622				432			
		715		1		Pallet	PDB011	1	0	8102		M
		715		1		Lid	P1208	1	0			
		715		1		KLT	P6428	4	108	8005	8008	S

2.7.5.12 Loading unit with one container, sorted bay article, inner packaging, small load (KLT) with label, same packaging, different filling quantity

Article number
36190623

Packaging
1x P1208
4x P6428
1x PDB011

Filling quantity
3x108
1x96



Package identification

VDA	Package number
S	8001
S	8002
S	8003
S	8004
M	8011

Record type			No. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190623				420			
		715		1		Pallet	PDB011	1	0	8011		M
		715		1		Lid	P1208	1	0			
		715		1		KLT	P6428	1	96	8001		S
		715		1		KLT	P6428	3	108	8002	8004	S

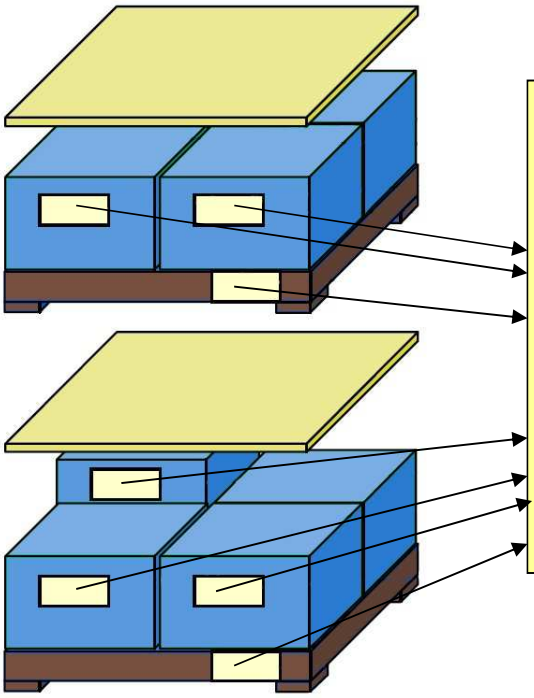
2.7.5.13 Shipping unit with two loading units, container sorted by article, same packaging, different filling quantity

Article number
36190624

Packaging
2x P1208
8x P6428
2x PDB011

Filling quantity
4x 120

Filling quantity
3x 120
1x 50

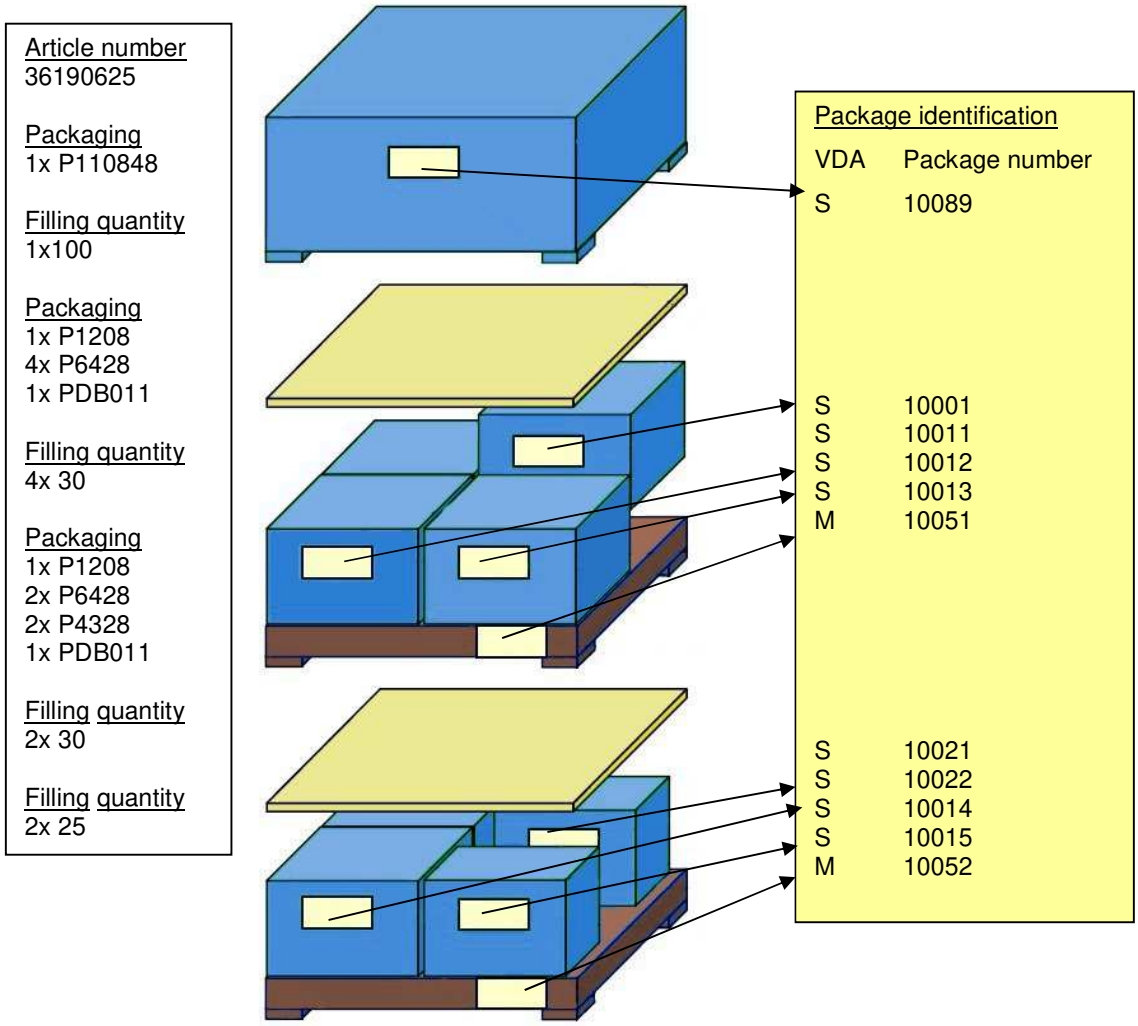


Package identification

VDA	Package number
S	9001
S	9002
S	9003
S	9004
M	9101
S	9005
S	9006
S	9007
S	9008
M	9102

Record type			No. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190624				890			
↓		715		1		Pallet	PDB011	1	0	9101		M
↑		715		1		Lid	P1208	1	0			
↑		715		1		KLT	P6428	4	120	9001	9004	S
↓		715		2		Pallet	PDB011	1	0	9102		M
		715		2		Lid	P1208	1	0			
↑		715		2		KLT	P6428	1	50	9005		
↑		715		2		KLT	P6428	3	120	9006	9008	S

2.7.5.14 Shipping unit with three loading units sorted by article, two containers and one big load (GLT), different packaging, different quantity



Satzart			Nr. LS	Pos. LS	Nr. Art.	Typ PM	Bez. PM	Anzahl PM	Menge	Nummer PS > von	Nummer PS < bis	Kennung PS
713			123456									
	714			1	36190625				330			
		715		1		GLT	P110848	1	100	10089		S
		715		1		Palette	PDB011	1	0	10051		M
		715		1		Deckel	P1208	1	0			
		715		1		KLT	P6428	1	30	10001		S
		715		1		KLT	P6428	3	30	10011	10013	S
		715		1		Palette	PDB011	1	0	10052		M
		715		1		Deckel	P1208	1	0			
		715		1		KLT	P6428	2	30	10021	10022	S
		715		1		KLT	P4328	2	25	10014	10015	S

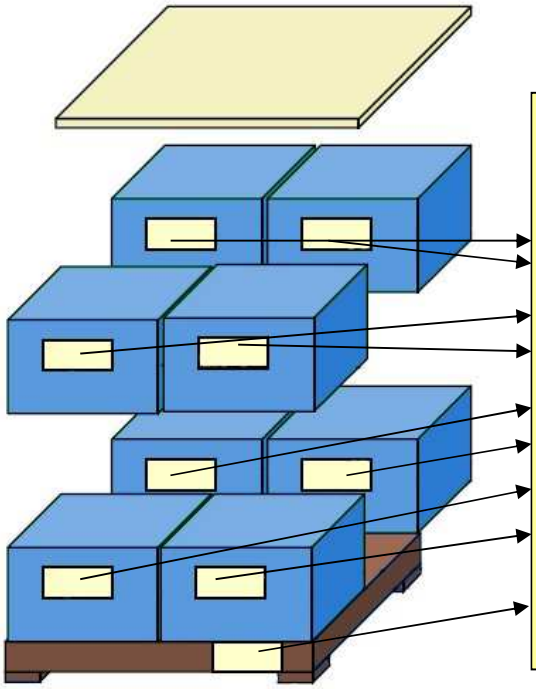
2.7.5.15 Loading unit with one mixed container, three different articles, same packaging

Packaging
1x P1208
1x PDB011

Article number
36190626
Packaging
4x P6428
Filling quantity
2x 30
2x 20

Article number
36190627
Packaging
2x P6428
Filling quantity
1x 40
1x 20

Article number
36190628
Packaging
2x P6428
Filling quantity
2x 40



Package identification

VDA	Package number
S	11010
S	11011
S	11012
S	11013
S	11001
S	11002
S	11020
S	11021
G	11023

Record type			No. LS	Pos. LS	No. Art.	Type PM	Description PM	Number PM	Amount	Number PS > from	Number PS < to	Identif. PS
713			123456									
	714			1	36190626				100			
		715		1		Pallet	PDB011	1	0	11023		G
		715		1		Lid	P1208	1	0			
		715		1		KLT	P6428	2	30	11010	11011	S
		715		1		KLT	P6428	2	20	11012	10013	S
713			123457									
	714			1	36190627				60			
		715		1		Pallet	PDB011	0	0	11023		G
		715		1		KLT	P6428	1	40	11001		S
		715		1		KLT	P6428	1	20	11002		S
713			123458									
	714			1	36190628				80			
		715		1		Pallet	PDB011	0	0	11023		G
		715		1		KLT	P6428	2	40	11020	11021	S

Each article in the mixed container must have a new delivery note number (SA 713). After the change of the article number, the mixed container will be displayed by repeating the 715 record for the ground pallet (here: “PDB011”), by repeating the package number “11023” and the label identification “G”. In the repeated row for the ground pallet the package number must be 0, otherwise this package will be counted several times. The packages which belong to the ground pallet / exterior packaging (e.g. lid “P1208”) or which cannot be assigned clearly to another inner packaging (see also 2.7.5.19) are listed together with the ground pallet / exterior packaging. **In general**, the number of individual packages must match the actual number of packages.

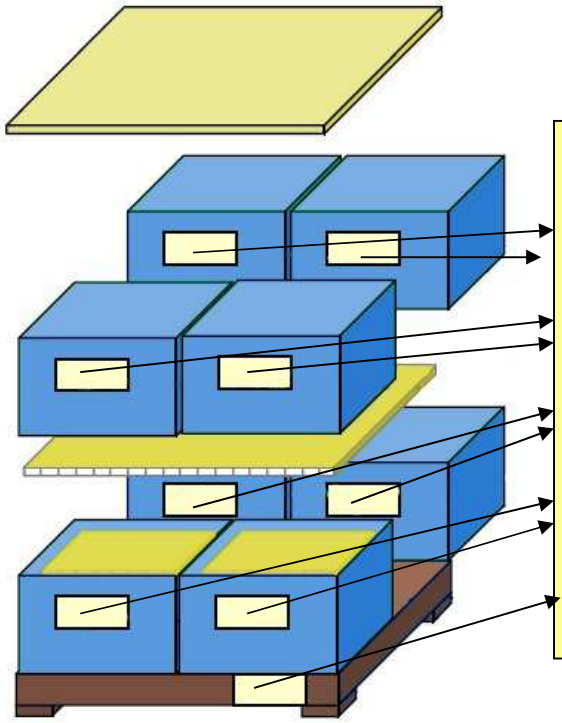
2.7.5.16 Loading unit with one mixed container with interlayer, three different articles, same packaging

Packaging
1x P1208
1x P0BM4802
1x PDB011

Article number
36190629
Packaging
4x P6428
Filling quantity
2x 30
2x 20

Article number
36190630
Packaging
2x P6428
Filling quantity
1x 40
1x 20

Article number
36190631
Packaging
2x P1019
2x P6428
Filling quantity
2x 40



Package identification

VDA	Package number
S	11010
S	11011
S	11012
S	11013
S	11001
S	11002
S	11020
S	11021
G	11023

Satzart			Nr. LS	Pos. LS	Nr. Art.	Typ PM	Bez. PM	Anzahl PM	Menge	Nummer PS > von	Nummer PS < bis	Kennung PS
713			123456									
	714			1	36190629				100			
		715		1		Palette	PDB011	1	0	11023		G
		715		1		Zwischenlage	P0BM4802	1	0			
		715		1		Deckel	P1208	1	0			
		715		1		KLT	P6428	2	30	11010	11011	S
		715		1		KLT	P6428	2	20	11012	11013	S
713			123457									
	714			1	36190630				60			
		715		1		Palette	PDB011	0	0	11023		G
		715		1		KLT	P6428	1	40	11001		S
		715		1		KLT	P6428	1	20	11002		S
713			123458									
	714			1	36190631				80			
		715		1		Palette	PDB011	0	0	11023		G
		715		1		Formeinlage	P1019	2	0			
		715		1		KLT	P6428	2	40	11020	11021	S

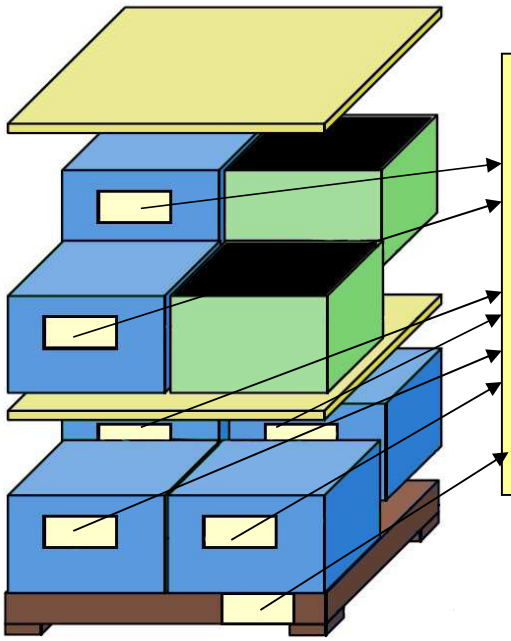
The interlayer of the container P0BM4802 must be shown as packaging aid right behind the ground pallet. The small load interlayer P1019 for the small load (KLT) has to be shown between the repetition set of the ground pallet and the set for the small load (KLT) and the interlayer.

2.7.5.17 Loading unit with one mixed container with empty containers to stabilize the load

Packaging
1x P1208,
2x P6428
(empty),
1x P0BM4802,
1x PDB011

Article number
36190642
Packaging
2x P6428
Filling quantity
2x 30

Article number
36190643
Packaging
4x P6428
Filling quantity
4x 40



Package identification

VDA	Package number
S	13001
S	13002
S	13009
S	13010
S	13011
S	13014
G	13055

Satzart			Nr. LS	Pos. LS	Nr. Art.	Typ PM	Bez. PM	Anzahl PM	Menge	Nummer PS > von	Nummer PS < bis	Kennung PS
713			123456									
	714			1	36190642				60			
↓		715		1		Palette	PDB011	1	0	13055		G
		715		1		KLT	P6428	2	0			
		715		1		Zwischenlage	P0BM4802	1	0			
↑		715		1		Deckel	P1208	1	0			
		715		1		KLT	P6428	2	30	13001	13002	S
713			123457									
	714			1	36190643				160			
		715		1		Palette	PDB011	0	0	13055		G
		715		1		KLT	P6428	3	40	13009	13011	S
↑		715		1		KLT	P6428	1	40	13014		S

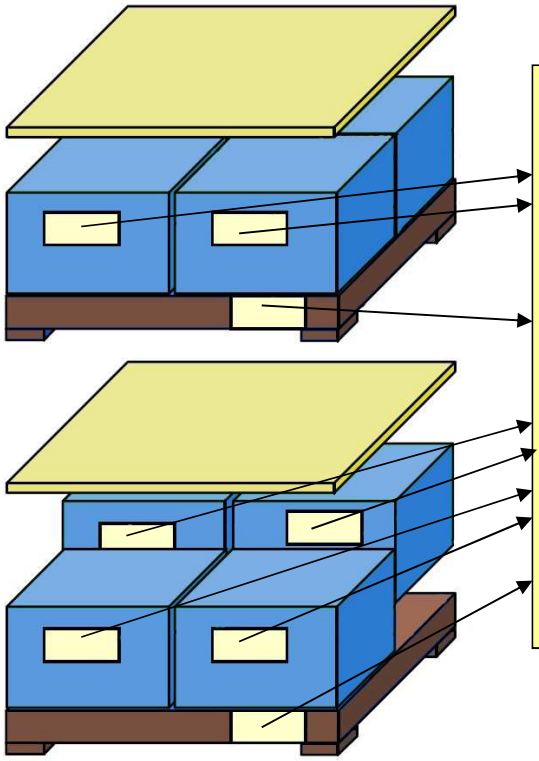
Both empty containers P6428 must be marked as packaging aid (filling quantity = 0) and must be assigned to the outer packaging as packaging aid.

2.7.5.18 Shipping unit with two loading units, one container sorted by article, one mixed container with articles from a container sorted by article

Packaging
1x P1208,
4x P6428,
1x PDB011
Filling quantity
4x100

Article number
36190644
Packaging
1x P1208
4x P6428
1x PDB011
Filling quantity
2x 100
1x 50
Article number
36190644

Filling quantity
1x200
Article number
36190645



Package identification

VDA	Package number
S	19001
S	19002
S	19003
S	19004
M	19101
S	19005
S	19006
S	19007
S	19008
G	19102

Satzart			Nr. LS	Pos. LS	Nr. Art.	Typ PM	Bez. PM	Anzahl PM	Menge	Nummer PS > von	Nummer PS < bis	Kennung PS
713			123456									
	714			1	36190644				400			
		715		1		Palette	PDB011	1	0	19101		M
		715		1		Deckel	P1208	1	0			
		715		1		KLT	P6428	4	100	19001	19004	S
	714			2	36190644				250			
		715		2		Palette	PDB011	1	0	19102		G
		715		2		Deckel	P1208	1	0			
		715		2		KLT	P6428	2	100	19006	19007	S
		715		2		KLT	P6428	1	50	19005		S
713			123457									
	714			1	36190645				200			
		715		1		Palette	PDB11	0	0	19102		G
		715		1		KLT	P6428	1	200	19008		S

In this visualization, the delivery quantity of article 36190644 is divided up into two delivery note positions with single quantities. Each pallet has one SA 715, number of packaging = 1 for the outer packaging. The second pallet 19102 is a mixed container.

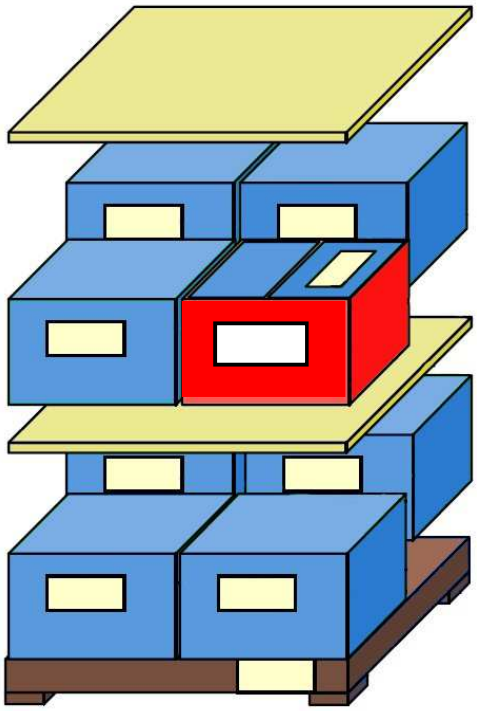
2.7.5.19 Loading unit with one mixed container with separate packaging in small load (KLT), different article, different packaging (PM)

Packaging
1x P1208,
1x P0BM4802,
1x PDB011

Article number
36190634
Packaging
3x P6428
Filling quantity
2x 30, 1x 20

Packaging
1x P6428
Article number
36190635
Packaging
1x P0001SC
Filling quantity
1x20

Article number
36190636
Packaging
4x P6428
Filling quantity
3x 40, 1x20



Packaging identification

VDA	Packaging Number
S	12001
S	12002
S	12007
S	12112 Separate Packaging
S	12113 !!!
S	12009
S	12010
S	12011
S	12012

Article Number
36190637
Packaging
1x P0002SC
Filling Quantity
1x 60 ***Separate Packaging***

	Record Type		Bill of delivery	LS-Pos.	Article-number	Packaging Type	Packaging Number	Quantity	Packaging no. >from	Packaging no. < till	Pack. identifi.
713			123456								
	714			1	36190634			140			
		715		1		PDB011	1	0	12020		G
		715		1		P0BM4802	1	0			
		715		1		P1208	1	0			
		715		1		P6428	3	40	12009	12011	S
		715		1		P6428	1	20	12012		S
	714		123456	2	36190635			100			
		715		2		PDB011	0	0	12020		G
		715		2		P6428	2	30	12001	12002	S
		715		2		P6428	1	20	12007		S
		715		2		P6428	1	20	12113		S
	714		123456		36190636			60			
		715		3		PDB011	0	0	12020		G
		715		3		BEIP0	1	60	12112		S

Separate Packaging

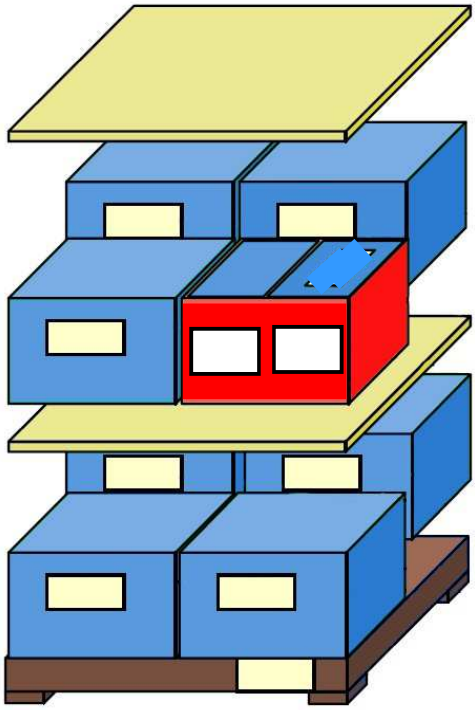
If an article is reconciled without a separate inner packaging (loose, plastic bags, boxes) in a delivery unit with another article, this is referred as a separate packaging in mixed containers. This separate packaging should be avoided and therefore is occurred seldom only.

In this example, the container 12020 contains two different articles in a total of eight small loads. In a small load of 6428, the third article was reconciled. Both articles are packed in each box, but are not classified as packaging.

The separate packaging is to be displayed in a mixed container (in the VDA4913) in the two-level packaging hierarchy, an intermediate level cannot be displayed. All articles in a mixed container are appeared

possibly under the same delivery bill number. An article number should be appeared only under a delivery bill position.

2.7.5.20 Loading unit with one mixed container with unit or paired articles in small load (KLT), different article, different packaging (PM)



Packaging
1x P1208,
1x P0BM4802,
1x PDB011

Article number
36190634
Packaging
3x P6428
Filling Quantity
2x 30, 1x 20

Packaging
1x P6428
Article number
36190635
Packaging
1x P0001SC
Filling Quantity
1x20

Article number
36190636
Packaging
4x P6428
Filling Quantity
3x 40, 1x20

Packaging Identification

VDA	Packaging number
S	12001
S	12002
S	12007
S	12112 Separate Packaging
S	12113 !!!
S	12009
S	12010
S	12011
S	12012
G	12020

Article Number
36190637
Packaging
1x P0002SC
Filling Quantity
1x 60

Separate Packaging

	Record Type		Bill of delivery	LS-Pos.	Article number	Packaging type	Packaging number	Quantity	Packaging number <from	Packaging number <till	Pack. Identi.
713			123456								
	714			1	36190634			140			
		715		1		PDB011	1	0	12020		G
		715		1		P0BM4802	1	0			
		715		1		P1208	1	0			
		715		1		P6428	3	40	12009	12011	S
		715		1		P6428	1	20	12012		S
	714		123456	2	36190635			100			
		715		2		PDB011	0	0	12020		G
		715		2		P6428	2	30	12001	12002	S
		715		2		P6428	1	20	12007		S
		715		2		P6428	1	20	12113		S
	714		123456		36190636			60			
		715		3		PDB011	0	0	12020		G
		715		3		BEIP0	1	60	12112		S

Separate Packaging

If an article is reconciled without a separate inner packaging (loose, plastic bags, boxes) in a delivery unit with another article, this is referred as a separate packaging in mixed containers. This separate packaging should be avoided and therefore is occurred seldom only.

In this example, the container 12020 contains two different articles in a total of eight small loads. In a small load of 6428, the third article was reconciled. Both articles are packed in each box, but are not classified as packaging.

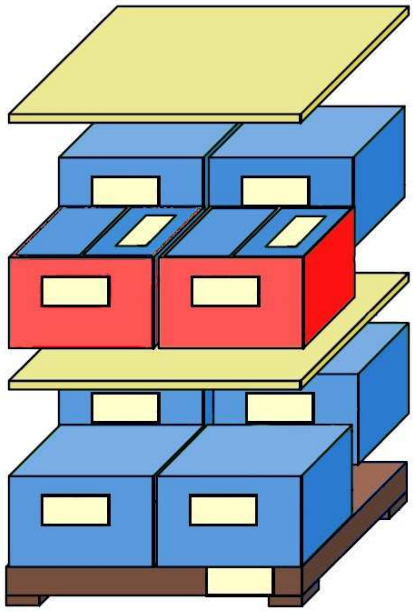
The separate packaging is to be displayed in a mixed container (in the VDA4913) in the two-level packaging hierarchy, an intermediate level cannot be displayed. All articles in a mixed container are appeared possibly under the same delivery bill number. An article number should be appeared only under a delivery bill position.

2.7.5.21 Loading unit with one mixed container with two separate packaging in small load (KLT), different article, different packaging (PM)

Packaging
1x P1208, 1x P0BM4802, 1x PDB011

Article number: 36190638
Packaging: 2x P6428
Filling quant ity 2x 30

Packaging 1x P6428 Article number 36190639 Fillin quantity 1x20	Packaging 1x P6428 Article number 36190641 Fillin quantity 1x20
Article number 36190640 Packaging 1x P0001SC Filling quantity 1x 60 ***Separate Packaging 1***	Article number 36190641 Packaging 1x P0002SC Filling quantity 1x 60 ***Separate Packaging 2***
Article number 36190638 Packmittel 4x P6428 Filling quantity 4 x 40	



Packaging identification	
VDA	Packaging number
S	12002
S	12007
S	12112 Separate packaging
S	12001 Separate packaging
S	12113
S	12114
S	12009
S	12010
S	12011
S	12012
G	12020

	Record Type		Bill of delivery	LS-Pos.	Article number	Packaging Type	Packaging number	Quan-tity	Packaging No. > from	packaging No. < till	Pack.. Ident.
713			123456								
	714			1	36190638			160			
		715		1		PDB011	1	0	12020		G
		715		1		P0BM4802	1	0			
		715		1		P1208	0	0			
		715		1		P6428	4	40	12009	12012	S
	714		123456	2	36190639			100			
		715		2		PDB011	0	0	12020		G
		715		2		P6428	2	30	12002		S
		715		2		P6428	2	30	12007		S
		715		2		P6428	2	20	12113	12114	S
	714		123456	3	36190640			60			
		715		3		PDB011	0	0	12020		G
		715		3		BEIPACK	1	60	12112		S
	714		123456	4	36190641			60			
		715		4		PDB011	0	0	12020		G
		715		4		BEIPACK	1	60	12001		S

In this example, the container of 12 020 contains four different articles in a total of 8 small loads. In two small loads of 12113/12114, each article was reconciled. Both articles are packed in each box (no value), which in this context are not classified as packaging.

3 EDI accompanying document according to VDA 4912

The EDI accompanying document according to VDA 4912 serves both as a single document when applying the VDA Recommendation 4913 and for manual entry of delivery and transport data if the EDI for the delivery and transport data is not available when the delivery arrives.

By using EDI accompanying document according to VDA 4912, paper work is reduced. The delivery note form according to DIN 4994 is then no longer needed.

3.1 Document and information flow

EDI accompanying document has to be issued by the supplier and passed to the carrier. If deliveries are not carried by truck, the EDI accompanying document must be enclosed with the product.

3.2 Format and design

According to Sample 4 of the VDA recommendation 4912, the supplier must use the portrait format DIN A4 with15 characters per inch (see Annex 2). For further information on the content of the EDI accompanying document, see VDA recommendation 4912.

4 Material tag according to VDA 4902, Version 4

The material tag is used to label product and packaging in the internal material flow and while transporting the goods between supplier, carrier and goods receiver. The material tag also complements the delivery and transport data as an information carrier on the goods. The supplier must use the material tag VDA 4902 version 4 for all deliveries to SMP.

4.1 Format and design

All suppliers must ensure that all packaging (= load = packing material) carries the latest material tag with all data and barcodes (Code 39) needed according to VDA 4902 version 4. Pallets and inner packaging materials must have a standardized label which meets the requirements of the SMP shipping instructions. The information on the material tag must match the contents of EDI delivery and transport data submitted before.

Depending on the type of packaging, different types of material tags are available to identify the goods. The format 210 mm x 148 mm must be used for big loads - GLT - (cage pallets, closed plastic containers ,...) or as collective material tag used per unit load. The format 210 mm x 74 mm is used for labelling small loads (KLT) and cartons. Samples for both formats can be found in Annex 3 and 4

The formal and structural design of the material tag corresponds to the trailer requirements of the VDA recommendation. The requirements of the VDA recommendation for the format and the execution of material tags as well as the technical requirements for bar code must be observed.

The data content and format of the data fields on the material tag must be taken from the delivery schedule or call offs unless this is data that must be gathered or supplied by the supplier. The information on the material tags must match the contents of the EDI delivery and transport data and the EDI accompanying documents.

4.2 Overview of the data elements

4.2.1 Data segments and description of the big load label (Format 210 mm x 148 mm)

Pos	Data segment	K M	Number character	Font size mm	Bar code yes/no	Description
01	Goods Receiver	M	2x20	7	no	Complete delivery postal address of the goods receiver must be entered
02	Unloading Point / Point of delivery	M	5 7	5 5	no no	Unloading point as shown in delivery schedule must be entered
03	Delivery note number	M	8	7	yes	Number must match the date on delivery note or EDI message
04	Supplier address short	M	29	5	no	Address of the loader (supplier) in short form
05	Net weight	K	4	5	no	Net weight of the carrier [kg]

Pos	Data segment	K M	Number character	Font size mm	Bar code yes/no	Description
06	Gross weight	K	4	5	no	Gross weight including packaging per loading unit / container
07	Number of packages	K	3	5	no	Number of packages delivered per delivery note number or delivery
08	Article number customer	M	22	13	yes	Article number assigned by SMP to the part as shown in the call off
09	Quantity per package	M	7,3	13	yes	Number of pieces in the package
10	Delivery de-scription	M	30	5	no	Article description agreed between recipient and supplier
11.1	Article number of the supplier	K	22 10	7 13	yes	Internal article number of the sup-plier
11.2	Article number supplier of the packaging type	M	10	13	yes	Number of the packaging type ac-cording to the latest packaging agreement must be entered
12	Supplier ID	M	9	5	yes	ID SMP assigns to a supplier
13	Date	K	7	7	no	Production Date (P_JJ.MM.TT), De-livery Date (D_JJ.MM.TT) or Expiry Date (U_JJ.MM.TT). To be distin-guished by prefixed P, D or U.
14	Engineering change status	M	14	7	no	ID SMP assigns to a design change status
15	Package ID and Package No. (S/M/G)	M	9	5	yes	Package ID is numerical and identi-fies the packages. Package ID is as-signed by the supplier and must not be repeated within a year. The pack-ing unit numbers must be shown in, and be identical with, the VDA 4913 and the EDI accompanying docu-ments note.
16	Batch Number	K	10	5	yes	ID assigned by the manufacturer to the batch
						K = Kann, Conditional M = Muss, Mandatory

Note:

Field: Design change status (Pos. 14) – This field must be submitted (in derogation of VDA recommenda-tion 4902).

For more information on overview and description of data elements, see VDA recommendation 4902, Version 4, Item 3, pages 3 et seq.

4.2.2 Data segments and description of the small load label (Format 210 mm x 74 mm)

Pos	Data segment	K M	Number character	Font size mm	Bar code yes/no	Description
01	Goods Receiver short	M	2x20	2	no	Short form of delivery postal address of the goods receiver must be entered
02	Unloading Point / Point of delivery	M	5 7	5 5	no no	Unloading point as shown in delivery schedule must be entered
03	Delivery note number	M	8	5	yes	Number must be the same as shown on delivery note or EDI message
08	Article number customer	M	22	5	yes	Article number assigned by SMP and shown in the call off
09	Quantity per package	M	7,3	5	yes	Number of pieces in the package
10	Delivery description	M	30	5	no	The article description agreed between recipient and supplier
11.1	Article number of the supplier	K	22 10	7 13	yes	Supplier's internal article number
11.2	Article number supplier of the packaging type	M	10	13	yes	Number of the packaging type according to the latest packaging agreement must be entered
12	Supplier ID	M	9	5	yes	ID assigned by SMP to supplier
13	Date	K	7	5	no	Production Date (P_JJ.MM.TT), Delivery Date (D_JJ.MM.TT) or Expiry Date (U_JJ.MM.TT). To be distinguished by prefixed P, D or U.
14	Design change status	M	14	5	no	ID SMP assigns to a design change status
15	Package ID and Package No. (S/M/G)	M	9	5	yes	Package ID is numerical and identifies the packages. Package ID is assigned by the supplier and must not be repeated within a year. The packing unit numbers must be shown in, and be identical with, the VDA 4913 and the EDI accompanying documents note.
16	Batch Number	K	10	5	yes	ID assigned by the manufacturer to the batch

Pos	Data segment	K M	Number character	Font size mm	Bar code yes/no	Description
						K = Kann, Conditional M = Muss, Mandatory

Note:
Field: Design change status (Pos. 14) – This field must be submitted (in derogation of VDA recommendation 4902).

For more information on the other special features of VDA small load label (KLT), see VDA recommendation 4902, Version 4, Item 6, page 13 et seq.

4.3 Applying the material tag

Each loading unit, load and package must be labelled with a material tag. On principle, each container must be labelled with only one material tag. Consequently, internal labels of the supplier must be removed before sending the goods to SMP.

Material tags must be visibly and legibly affixed to the loading unit and must be attached with four adhesive fixing points or in the document bags (as described in the VDA recommendation). Placing the material tag on the rim of the lid is not permitted. Labelling the material tag over its entire surface on the packaging is only permitted if the material tag can be removed without sticky residue. Also, care must be taken to ensure that the tags or labels are not damaged during loading during the load.

SMP reserves the right to charge the supplier for errors caused by missing, incomplete or illegible material tags.

Appendix

Annex 1: Contact persons at SMP

Contact persons regarding EDI messages (VDA Standard), container management and packaging planning)

Plant	Plant No.	Contact Person EDI Messages	Contact Person Packaging Planning	Contact Person Container Management
SMP Deutschland GmbH **Headquarters** Schlossmattenstrasse 18 79268 Bötzingen	110	**Frank Faller** Phone: +49 7663 61 2684 Email: frank.faller@smp-automotive.com		
SMP Deutschland GmbH **Plant Bötzingen** Schlossmattenstrasse 18 79268 Bötzingen	101	**Timo Weber** Phone: +49 7663 61 3458 Email: timo.weber@smp-automotive.com	**Joachim Riese** Phone: +49 7663 61 2587 Email: joachim.riese@smp-automotive.com	Customer Container Management **Kerstin Michaelis** Phone: +49 7663 61 2380 Email: kerstin.michaelis@smp-automotive.com Supplier Container Management **Marie-Luise Wolf** Phone: +49 7663 61 2371 Email: marie-luise.wolf@smp-automotive.com
SMP Deutschland GmbH **Plant Göttingen** Martin-Luther-Str. 30a 37081 Göttingen	102	**Frank Meyer** Phone: +49 551 6937 1622 Email: frank.meyer@smp-automotive.com	**Armin Ruth** Phone: +49 551 6937 1736 Email: armin.ruth@smp-automotive.com	**Sabine Becker** Phone: +49 551 6937 1532 Email: sabine.becker@smp-automotive.com.de
SMP Deutschland GmbH **Plant Oldenburg** Rheinstr. 40 26135 Oldenburg	105	**Andreas Hinrichs** Phone: +49 441 2106 5933 Email: andreas.hinrichs@smp-automotive.com	**Hartmut Oltmer** Phone: +49 441 2106 5877 Email: hartmut.oltmer@smp-automotive.com	**Hartmut Oltmer** Phone: +49 441 2106 5877 Email: hartmut.oltmer@smp-automotive.com
SMP Deutschland GmbH **Plant Neustadt** Umbertshausener Weg 93333 Neustadt (Donau)	107	**Thomas Kleinebrahm** Phone: +49 8402 77 4288 Email: thomas.kleinebrahm@smp-automotive.com	**Bernhard Trojer** Phone: +49 8402 77 4201 Email: bernhard.trojer@smp-automotive.com **Martin Danhauser** Phone: +49 8402 77 4495 Email: martin.danhauser@smp-automotive.com	**Michaela Götzfried** Phone: +49 8402 77 4149 Email: michaela.goetzfried@smp-automotive.com **Lisa Peter** Phone: +49 8402 77 4634 Email: lisa.peter@smp-automotive.com
SMP Deutschland GmbH **Plant Meerane** Seiferitzer Allee 36 08393 Meerane	109	**Michael Gelfert** Phone: +49 3764 4016 6182 Email: michael.gelfert@smp-automotive.com	**Sylvia Keßler** Phone: +49 3764 4016 6214 Email: sylvia.kessler@smp-automotive.com	**Thomas Ludwig** Phone: +49 3764 4016 6108 Email: thomas.ludwig@smp-automotive.com
SMP Deutschland GmbH **Module Center Ingolstadt** Im GVZ Ingolstadt Halle G / Werk 37 Pascalstr. 2 85057 Ingolstadt	137	**Thomas Kleinebrahm** Phone: +49 8402 77 4288 Email: thomas.kleinebrahm@smp-automotive.com	**Bernhard Trojer** Phone: +49 8402 77 4201 Email: bernhard.trojer@smp-automotive.com **Martin Danhauser** Phone: +49 8402 77 4495 Email: martin.danhauser@smp-automotive.com	**Michaela Götzfried** Phone: +49 8402 77 4149 Email: michaela.goetzfried@smp-automotive.com **Lisa Peter** Phone: +49 8402 77 4634 Email: lisa.peter@smp-automotive.com

Plant	Plant No.	Contact Person EDI Messages	Contact Person Packaging Planning	Contact Person Container Management
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Annex 2: Overview of plants and unloading points of SMP

The unloading points used usually have four digits. To distinguish between 'normal' delivery schedules and consignment delivery plans, the fifth digit of the field unloading point is used. In "normal" delivery plans the fifth digit is blank, in case of a consignment delivery schedule, the fifth digit of the field unloading point is a “K”.

The following table shows the entry data set 512, field 03 *Delivery plant*, Pos 6-8 and in field *Unloading points*, Pos or 95-99 and in data set 713 in section 11 *Delivery* plant, Pos 49-51 and in field *Unloading point*, Pos 20-24 used.

Plant *)	DUNS	Plant Number	Unloading Point **)
SMP Deutschland GmbH **Headquarters** Schlossmattenstrasse 18 79268 Bötzingen Court of registration: 79011 Freiburg, HRB 7436 Tax Number.: 07025 / 15805 VAT ID No.: DE 814 181 750	33 367 1555 (Header DUNS)	110	10xx VDA 4905 and VDA 4913 not possible!
		111	11xx VDA 4905 and VDA 4913 not possible!
SMP Deutschland GmbH **Plant Bötzingen** Schlossmattenstrasse 18 79268 Bötzingen	34 171 0834	101	01xx
SMP Deutschland GmbH **Plant Göttingen** Martin-Luther-Str. 30a 37081 Göttingen	33 358 5313	102	02xx
SMP Deutschland GmbH **Plant Oldenburg** Rheinstr. 40 26135 Oldenburg	32 324 9730	105	05xx
SMP Deutschland GmbH **Plant Neustadt** Umbertshausener Weg 93333 Neustadt (Donau)	32 459 4886	107	07xx
SMP Deutschland GmbH **Plant Meerane** Seiferitzer Allee 36 08393 Meerane	32 850 5479	109	09xx
SMP Deutschland GmbH **Advanced Engineering** Rockwellstraße 8 38518 Gifhorn	33 238 5835	121	VDA 4905 and VDA 4913 not possible!
SMP Deutschland GmbH **Module Center Ingolstadt** Im GVZ Ingolstadt Halle G / Werk 37 Pascalstr. 2 85057 Ingolstadt	34 200 8959	137	37xx
SMP Deutschland GmbH **Module Center Offenau** Talweg 40 74254 Offenau	34 200 8960	141	41xx

Plant *)	DUNS	Plant Number	Unloading Point **)
SMP Deutschland GmbH **Module Center Emden** Frisia Industriepark Borgwardstr. Halle 501 26721 Emden	34 2008 961	142	42xx
SMP Deutschland GmbH **Module Center Neckarsulm** Gewerbe- und Industriepark Bad Friedrichshall GmbH Schultheiß-Seeber-Str. 1-6 74177 Bad Friedrichshall	34 200 8960	143	43xx
SMP Deutschland GmbH **Module Center Bratislava** Schnellecke Slovakia s.r.o. Teheľna 18 SK-841 07 Bratislava	36 7160 609	146	46xx
SMP Deutschland GmbH **Module Center Leipzig** Dingolfinger Straße 13 04349 Leipzig	31 3111 912	149	49xx
SMP Deutschland GmbH **Module Center Böblingen** Herrenberger Str. 120/122 71034 Böblingen	31 334 6113	151	51xx
SMP Automotive Exterior GmbH **Plant Schierling** Ludwig-Erhard-Straße 1 84069 Schierling		550	50xx

*) The exact delivery addresses have to be asked in the respective plants. This applies particularly in case of new product starts.

**) The unloading area will typically consist of the first and last figure of the plant number and the storage place, while it is possible that the last two digits of the storage place are empty. Example: Plant 101 + Storage location 0003 = Unloading Point 0103

In case of consignment delivery schedules, the number of the unloading point is extended with the identifier "K". Example: Plant 101 + Storage location 0004 + Consignment Delivery Schedule = 0104K.
The delivery location remains the same.

Annex 3: EDI accompanying document according to VDA 4912

DFUE-WARENBEGLEITSCHEIN

SENDUNGS-NR 300022
ÜBERTRAGUNGS-NR 24

27.03.2012 - 13:49
Blatt 1·

LIEFERANTEN -WERK 42
-NR 33000598
Test Lieferant
Hauptstraße 11
D 61123 Im Wäldle

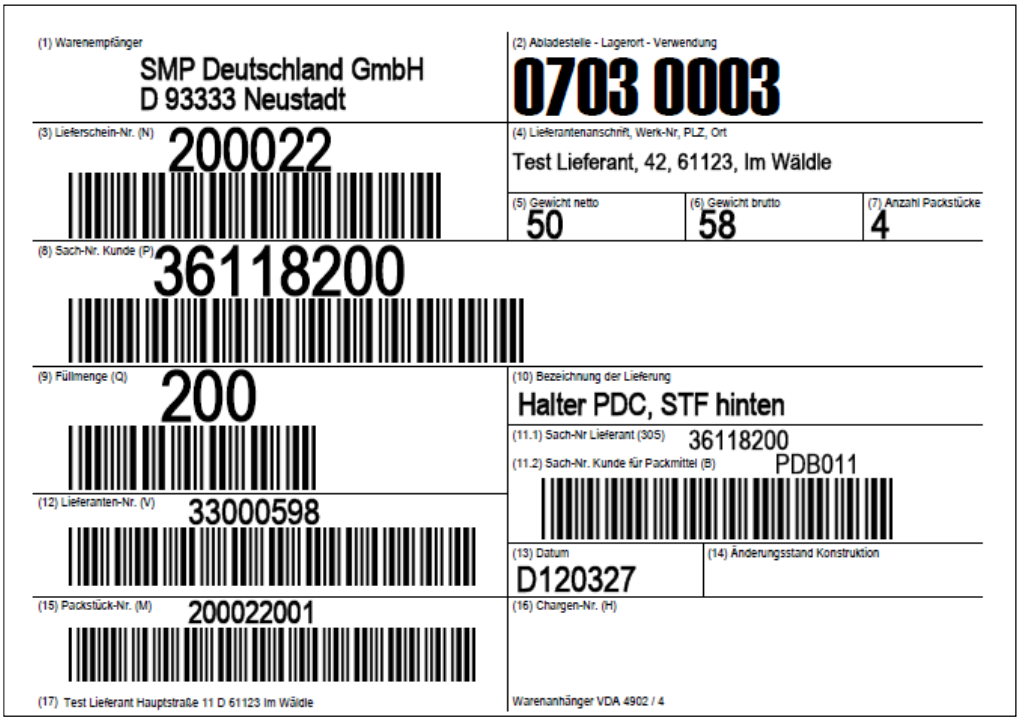
EMPFAENGER -WERK KUNDE 107
-NUMMER 12600
SMP Deutschland GmbH
Werk Neustadt
Umbertshausener Weg
D 93333 Neustadt

Abladestelle 0703
Lagerort 0003
Verbrauchsstelle
Versandart 03
FRACHTFUEHRER
-NUMMER 6001
SENDUNGS-BRUTTOGEWICHT 72

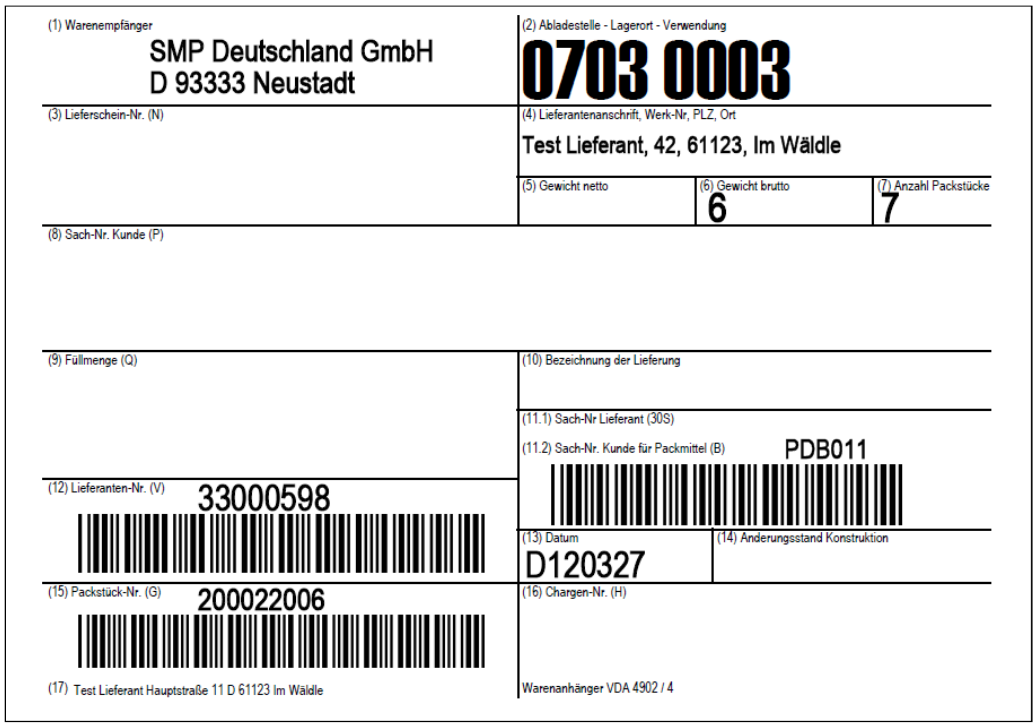
LS-Nr. / Datum / -POS / -Chargen-Nr.	SACHNUMMER KUNDE / SACHNUMMER LIEFERANT / PACKMITTEL -MENGE -NUMMER KUNDE / GEFAHRGUT	Menge	ME	V/G	BEZEICHNUNG DER LIEFERUNG / ZUSATZDATEN LIEFERANT / FUELLMENGE -NUMMER LIEFERANT	Bestell-Nr / KONSIGNATION
200022	36118200	200	ST	S/	Halter PDC, STF hinten	5500055633
27.03.2012	36118200					
001	VP 1 - PDB011			X	0 PDB011	
001	VP 4 - P6428			X	50 P6428	
001	VP 1 - P1208			X	0 P1208	
	Text P/EPDM TV10					
200022	36118501	300	ST	S/	36118501	5500059138
27.03.2012	36118501					
002	VP 1 - PDB011			X	0 PDB011	
002	VP 3 - P6428			X	100 P6428	
002	VP 1 - P1208			X	0 P1208	
	Text Zeichnungs-Nr.: 7 204 032 ,, Zeichnungs- Index: AI 04 KD-ZSB-Nr: 7 204 032 Abmess ung: Werkstoff/Farbe: PP EPDM					
200023	36118502	240	ST	S/	36118502	5500059139
27.03.2012	36118502					
001	VP 4 - P6428200022			X	60 P6428	
	Text Zeichnungs-Nr.: 7 204 029 ,, Zeichnungs- Index: AI 03 KD-ZSB-Nr: 7 204 029 Abmess ung: Werkstoff/Farbe: PP-EPDM					

******** Ende ********

Annex 4: Material tag VDA 4902, Version 4, Big load label (GLT), Format 210 mm x 148 mm

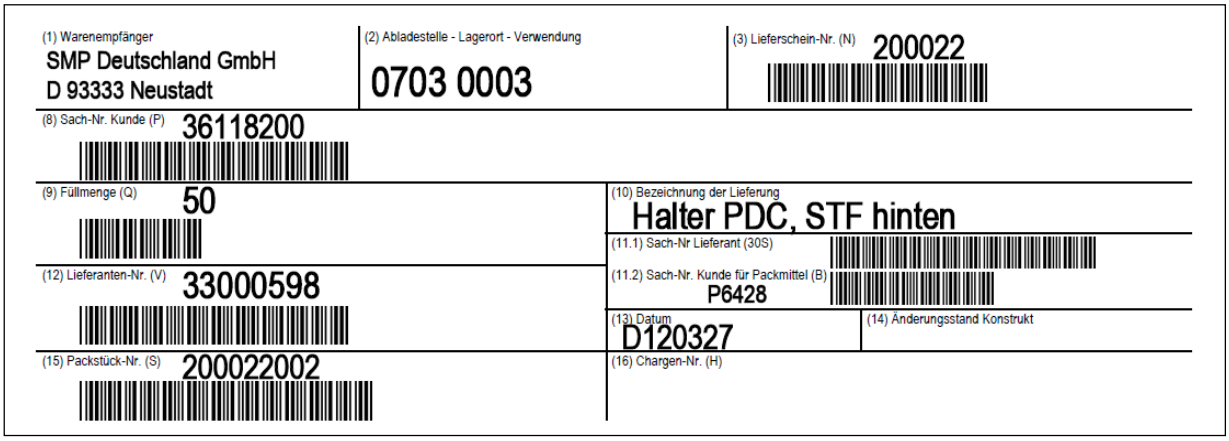


Sample M-Label for sorted loads



Beispiel G-Label for mixed loads

Annex 5: Material tag VDA 4902, Version 4, Small load label (KLT), Format 210 mm x 74 mm



Sample S-Label