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CHANGES

In comparison to the former version the following amendments have been made:

- Definition of the smallest packaging unit has been extended.
- Labeling of trays has been specified.
- Module width for PDF417 Label has been adapted.

HISTORY / PREVIOUS EDITION

TST N 3 9800.03 000 Revision 02 (2021-04-27) Requirements on marking of goods

1 SCOPE

This document defines the requirements for the MAT-Label, 2D-Label (synonym PDF417-Label) and VDA-Label for plants within Vitesco Technologies.

2 REFERENCES

TST N 3 9800.01 000 04: 2022-07-14	Packaging requirements for VT Plants and Suppliers
TST N 3 9800.02 000 01: 2021-04-23	Transportation, Customs/Foreign Trade and Export Control
(Without number)	Requirements on marking goods, MAT-Label, Version 2.6
VDA 4902: 1994-09-01	Warenanhänger (Master, Mix and Single Label)
VDA 4987: 2023-06-01	Lieferavise mit EDI – Global DESADV
ISO/IEC 15438: 2015-09-15	PDF417 bar code symbology specification
ISO/IEC 15434: 2019-02-01	AIDC, Syntax for high capacity ADC media
IEC 61340-5-3: 2022-04-01	Protection of electronic devices (packaging)

3 Requirements on marking of goods

The correct identification of goods in accordance with standard procedures helps to avoid unnecessary additional cost. The main requirements of Vitesco Technologies concerning the identification of goods by suppliers are laid down in the following paragraphs.

In the event of a failure to comply with TST N 3 9800.03 000 Revision 03 Requirements on marking of goods, Vitesco Technologies reserves the right to charge the cost of handling and printing of new labels to the supplier.

Vitesco Technologies request different types of labels on plant specific level. Following main label standards must be supported by supplier. Other plant specific label requirement as noted in this document is a subject to mutual agreement between the supplier and the requestor.

Any shipped material must always be marked with previously approved labels. Using wire for fixing labels, stickers, papers, etc. is prohibited.

4 MAT-LABEL

The MAT-Label becomes a new common standard at Vitesco Technologies worldwide in middle and long term. The implementation occurs plant specific.

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4.1 Approval process

The request for implementation as well as the approval process is plant specific. Only upon specific request and agreement, the MAT-Label shall be used for the plant concerned.

If the MAT-Label of a supplier was approved by a plant within Vitesco Technologies as general release and the approval is based on the requirements that are listed in the following, then basically the approval is valid for all other plants which request this type of label.

An approval refers to the layout, code, data fields, data syntax, print quality and label material. The confirmed correctness of data and data formats in customer given fields refers to one purchase order, only.

The approval is not meant to imply, that the customer given data and data formats are the same to other orders and plants. Customer given data (such as customer part number, index (material revision), vendor number (supplier-id), purchase order number) remain plant specific.

4.2 Basic specification



[Requirements on marking goods, MAT-Label, Version 2.6](#)

This cross-company specification is the basis to the requested MAT-Label and must be considered at first. It is the basic to develop and implement the MAT-Label, because main topics are specified in this document.

This cross-company specification is available via download at this [link](#).

Vitesco Technologies has additional requests to the basic MAT-Label. Following supplements must be considered.

4.3 MAT-Label as single label for each smallest packaging unit

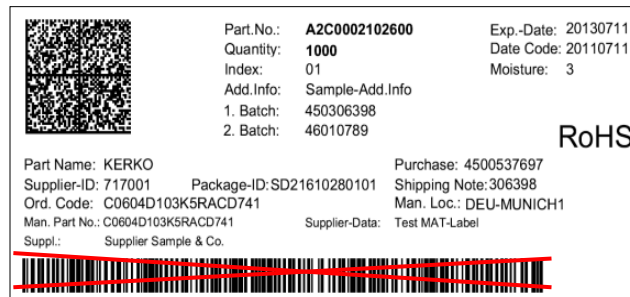
The MAT-Label is basically to understand as single label which must be attached on each smallest packaging unit in a way, that the label and code is easily reachable. The smallest packing unit is usually the one, which does not contain any sub-packaging, see chapter 6.

4.4 Additional Barcode (Code 128)

An additional barcode (Code 128) might be requested by other companies, but is not requested by Vitesco Technologies.

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New and updated layouts shall be developed without additional barcodes. Vitesco Technologies requests and uses the data matrix code, only.



(Sample of a prior requested label with code 128)

4.5 Code symbology for MAT-Label

The DATA MATRIX symbology (according to ISO/IEC 16022) with ECC 200 is requested as the standard code for MAT-Label.

4.6 Data syntax

- ISO conform syntax according ISO/IEC 15434

Vitesco Technologies prefers the original data syntax according to ISO/IEC 15434 including its hiddencharacter RS, GS and EOT (Hex: 1E, 1D and 04) in the message header, format envelope, data element separator and message trailer.

Regarding to the data syntax, new or separate developed MAT-Labels for Vitesco Technologies shall strictly base on ISO/IEC 15434.

- Alternative syntax based on ISO/IEC15434 but using @-character as data element separator.

In case of from other company already approved MAT-Labels by using alternative character (@ instead of any RS, GS and EOT) Vitesco Technologies accepts this syntax, too.

Vitesco Technologies reserves the right to withdraw the acceptance of using alternative character @ in the syntax with the consequence that already approved MAT-Labels with alternative syntax must be adjusted to original ISO/IEC 15434 syntax structure at the supplier's expense.

Independent of the data field and ISO conform syntax as well as alternative syntax, a @-character as data content (character in data field itself) is prohibited.

A hyperlink in syntax is prohibited (e.g. in field Supplier Data) if not expressly requested (e.g. in field Additional Part Information).

4.7 Ordering Code

General procedure

If the supplier has a specific Ordering Code beside its own part number for the accounted part/component, then this Ordering Code shall be stated in this field. If the supplier has no separate Ordering Code, then the manufacturer's part number shall be repeated in field Ordering Code.

Plant and part specific requirements

Plant and part specific request are possible and shall be supported after mutual agreement.

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4.8 Supplier-ID

The Supplier-ID is the individual vendor number assigned by Vitesco Technologies plant.

The Supplier-ID may be variable per plant and between plants. The Supplier-ID on MAT-Label shall reflect the vendor number used in the respective order (schedule agreement or single order).

4.9 Manufacturer Number

The Manufacturer Number is basically the CVM-Number (Vendor Master Number) of the manufacturing (not supplying) company. It is a unique identification for a company.

The CVM Number (as manufacturer number) will be stated by Vitesco Technologies to supplier during the MAT-Label development and approval process.

The manufacturer number on MAT-Label refers to the manufacturer and not to the supplier; even if both refer to the same company.

The manufacturer number is independent of Vitesco's consignee and remains always the same; if all shipped parts are produced by the declared manufacturer. An unauthorized change of the manufacturer number is prohibited.

In order to use the correct manufacturer number, following supplier - manufacturer relationships need to be considered for the whole Vitesco Technologies Group:

- Supplier is also the manufacturer to all shipped parts or components, ever:

In this case, the manufacturer number is always fixed.

- Supplier is not (!) the manufacturer partly or to all shipped parts, or components:

The manufacturer number depends on the individual company which has manufactured the supplied part or component.

In order to know and to match all the mandatory manufacturer numbers, the supplier has to state each possible manufacturer for all parts shipped to the entire Vitesco Technologies Group latest before sending the final draft of MAT-Label, during the MAT-Label approval process. Afterwards, the supplier gets the expected manufacturer number for each noted manufacturer.

In any case of a new manufacturer situation, the supplier has unrequested to ask for the corresponding manufacturer number.

Independent of the supplier - manufacturer constellation, it is in the supplier's responsibility to specify the correct manufacturer number on MAT-Label to each supplied part.

4.10 Package-ID

The Package-ID is created by manufacturer/supplier and shall be a unique number (or number/letter combination) as stated in the specification "Requirements on marking goods, MAT-Label, Version 2.6" (VT Homepage "Vitesco Technologies Supplier Special Information and Downloads": [Vitesco Technologies - Suppliers - Vitesco Technologies \(vitesco-technologies.com\)](https://www.vitesco-technologies.com)).

The uniqueness of Package-ID refers to the data field "Supplier-ID". That means, referring to the Supplier-ID, the Package-ID shall never repeat.

In case of letters, only upper case is allowed.

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For numbers and letters, only ASCII characters from 1 to 0 and A to Z are permitted. A consecutively numbering scheme is not mandatory, but permissible.

Not permitted are for example:

- blanks within the Package-ID, in front or at the end
- special characters (for example: ^, #, ", \$, %, μ, *, ~, ', >, <, |, etc.)
- nonprintable (hidden) characters (like ASCII control characters)
- minus, plus or hyphens

4.11 Expiration Date

For each part/component an expiry date must be defined. The expiry date is basically regulated in the GQA (general quality agreement), the category quality requirements (CQR) or in the individual part specification.

It is in the supplier's responsibility to set a correct date of expiration based on quality regulations.

4.12 Returned shipments

To avoid receiving returns with same Package-ID (as used at first shipment), returned shipments must be relabeled at supplier with new Package-ID. Other fields on MAT-Label may need an update, too (e.g., new batch number, new shipping note number, new quantity).

4.13 MAT-Label and other supplier own labels

Supplier own labels are permitted and shall not be removed. The MAT-Label shall not cover other labels or markings. Also, supplier labels shall not cover MAT-Label.

4.14 Labels or other markings on returnable packaging units

Permanent adhesive labels (also MAT-Labels) on a returnable packaging unit are prohibited.

4.15 MAT-Label and hazardous components

Covering R/S phrases as well as warning symbols with MAT-Label is prohibited (also partially). All security information and warning symbols remain untouched and must be unrestricted readable resp. visible.

4.16 Size and layout of MAT-Label

The dimension of MAT-Label depends on the size of the smallest packaging unit which needs to be marked with MAT-Label.

It is in the supplier's responsibility to choose the best label material which fits to the dimension and condition on the packaging unit.

In case of different packaging dimensions and/or packaging types, it might be necessary to use MAT-Labels in various sizes. It is in the supplier's responsibility to consider this.

In case of MAT-Label for KLT (single label on small load carrier) the label must fit to the dimension of the label holder (label pocket) on KLT. In Europe, such label holders are prepared for a label with dimension of 210 x 74 mm (width x height).

For MAT-Label in master version (per pallet or other loading unit, see chapter 4.17.3), a size of 210 x 148 mm (6 x4 inch, width x height) is preferred.

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4.17 Preferred layouts

In addition to the layouts in the basic specification “Requirements on marking goods, MAT-Label, Version 2.6” VT Homepage "Vitesco Technologies Supplier Special Information and Downloads": [Vitesco Technologies - Suppliers - Vitesco Technologies \(vitesco-technologies.com\)](https://www.vitesco-technologies.com), below samples shall help to adjust and organize an expected layout during development of MAT-Label.

As mentioned, the size of label depends on the dimension and condition on the packaging unit. Nevertheless, the layout shall be organized based on following references.


The borderline around is not requested. On below sample the lines are for illustration, only.


	Part Number: A2C53025522	Index:
	Quantity: 2000	MS-Level: 2
	Ordering Code: LSYT67B-S2T2-1-0+T1U2-35-0-30-R18-Z	
	Add.Info: 20100U10500	
	1. Batch: 1006376150	
	2. Batch:	
	Supplier: Sample & Co	
Multi LED		
Date Code: 20140411	Expiry Date: 20160324	
Supplier-ID: 8301596	Package-ID: S414318255401	
Purchase Order: 5500003734	Shipping N.: 56183183	
Man. Part-No.: Q65110A0272		
Man. Location: MYS-PENANG		RoHS
Supplier-Data: Pack: R18 T DEMY 016 B_P029		

All data fields shall be printed, except the following three fields:

- Label Versionshall not be printed,
- Manufacturer Number.....shall not be printed,
- Batch-Countercan be printed (must not).

4.17.1 Samples of MAT-Label without all printed data fields, valid for small packaging units only

	Part No.: 00196808A0	Index:
	Quantity: 1200	
	1. Batch: 126A006C	
	2. Batch:	
	Supplier-ID: 310734	
	Package-ID: S000001069425	
Expiry Date: 20150522		RoHS

	Part No.: 00196508A0	Index:
	Quantity: 1200	
	1. Batch: 126A006C	
	2. Batch:	
	Supplier-ID: 310734	

The code contains always all data fields and is independent of the amount on printed data. On small labels the code might be smaller, but the scan ability must be ensured. Smaller codes request higher quality and accuracy on print process.


The field “expiry date” is not mandatory on small MAT-Label, if the expiration date on supplier’s own label is visible. Of course, the expiry date on supplier’s own label must be the same day as encoded on MAT-Label.

If it is surely excluded, that a second batch will exist, then the field “2. Batch” can be deleted on layouts for small MAT-Labels.

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4.17.2 Layout KLT-Label (single label for small load carrier) with size of 210 x 74 mm

Conditions on the packaging unit must always be considered. Label holders, brackets or other fixing tools may impair printed information or codes on top, down, left or right. Basically, a covered code is not readable.

(1) Receiver Customer 1 93055 Regensburg	(2) Dock / Gate	(3) Shipping Note (16K): 20240326 Purchase Order Number (K): 551201200
	(8) Part Number (P): A2C0001321231	Add.Info (20P): Expiry Date (14D): 20260306 MS-Level (Z): N
	(9) Quantity (Q): 3000	(10) Part Name: Screw
(12) Packaging Unit - Reference: Supplier-ID (V): 70105044 26.03.2024 03:20:24	Package-ID (3S): S002024032601 Single Label	(11) Man. Part No.: (1P): 53753700 Ordering Code (31P): 53753700-01 Man. Loc.: (10V): DEU-BERLIN
(15) Supplier: Supplier: Supplier Sample & Co. Supplier-Data (1Z):	(13) Date Code (6D): 20240326	(14) Index (2P): 01
	(16) Batch Number: 1. Batch (1T): 2024032601 2. Batch (2T):	(Special mark)

4.17.3 Layout Master Label (size 210 x 148 mm, 6 x 4 inch)

(1) Receiver Customer 1 93055 Regensburg	(2) Dock / Gate / Point of Usage 1	Master Label	
Shipping Note (16K): 20240326	Supplier: Supplier Sample & Co.	Net WT (KG): 320	Gross WT (KG): 650
Purchase Order Number (K): 551201200		No of boxes: 10	
Part Number (P): A2C0001321231	Index (2P): 01		
Add.Info (20P):	MS-Level (Z): N		
Quantity (Q): 30000	Part Name: Screw		
Packaging Unit - Reference:	Man. Part No. (1P): 53753700		
Supplier-ID (V): 225026	Ordering Code (31P): 53753700-01		
Package-ID (3S): M112024032601	Man. Loc. (10V): DEU-BERLIN		
	Date Code (6D): 20240326		
	Expiry Date (14D): 20260326		
	1. Batch (1T): 2024032601		
	2. Batch (2T):		
MAT-Label as Masterlabel	Supplier-Data (1Z):		

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4.18 MAT-Label already approved by other companies

MAT-Labels approved by other companies, but based on "Requirements on marking goods, MAT-Label, Version 2.6" (VT Homepage "Vitesco Technologies Supplier Special Information and Downloads": [Vitesco Technologies - Suppliers – Vitesco Technologies \(vitesco-technologies.com\)](https://www.vitesco-technologies.com)) are basically applicable for Vitesco Technologies, too.

Additional Barcodes requested and approved by other companies must be removed. From other companies' prior approved labels, need a separate general release by Vitesco Technologies (see chapter 4.1)

To use MAT-Labels without general release issued by Vitesco Technologies is prohibited in general. Using MAT-Label is permitted only after prior request.

4.19 Using Master Label

A master label is intended for the marking of a loading unit (such as pallet or container). A master label alone (without single labels) is not permitted. A master label on the loading unit must always be completed with MAT-Label in single version per defined smallest packaging unit on or within the loading unit.

4.19.1 Master Label on expendable packaging

In case of expendable packaging, the standard type of master label is according to automotive standard specifications, like VDA, ODETTE, AIAG or GALIA.

The master label refers to the whole number of parts in the loading unit.

The loading unit with standard Automotive Master Label contains multiple subunits which are marked with a MAT-Label in single version.

(1) Receiver Customer1 INDUSTRIESTRASSE 135b 92055 Regensburg		(2) Dock - Gate 1	
(3) Advice Note No (N) 20240326 		(4) Supplier Address Sample AG 6750 KAISERSLAUTERN	
(5) Net weight 345		(6) Gross weight 450	(7) No Boxes 10
(8) Part No (P) A2C0001321231 			
(9) Quantity (Q) 3000 		(10) Description screw	
(12) Supplier (V) 70105044 		(11) Supplier Part No (S) 53753700 	
(13) Date 20240326		(14) Eng. Change	
(15) Serial No (M) 002024032611 		(16) Batch No (H) 2024032601 	
(17) CBS, POSTFACH 111, 6750 KAISERSLAUTERN		Warenamfänger VDA 4902, Version 4	

4.19.2 Master Label on returnable packaging


A MAT-Label in master version is necessary per loading unit in case of using returnable boxes (bin) or other returnable packaging units (e.g. trays).

The loading unit with MAT-Label in master version contains multiple subunits which are marked with a MAT-Label in single version.

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The layout of a MAT-Label in master version is shown in chapter 4.17.3.

Package-ID on master label starts with M.

(1) Receiver Customer 1 93055 Regensburg	(2) Dock / Gate / Point of Usage 1	Master Label	
Shipping Note (16K): 20240326	Supplier: Supplier Sample & Co.	Net WT (KG): 320	Gross WT (KG): 650
Purchase Order Number (K): 551201200	No of boxes: 10		
Part Number (P): A2C0001321231	Part Name: Screw		
Index (2P): 01	Man. Part No. (1P): 53753700		
Accl. Info (20P):	Ordering Code (31P): 53753700-01		
MS-Level (Z): N	Man. Loc. (10V): DEU-BERLIN	Date Code (6D): 20240326	Expiry Date (14D): 20260326
Quantity (Q): 30000	1. Batch (1T): 2024032601	2. Batch (2T):	
Packaging Unit - Reference:	Supplier-Data (1Z):		
Supplier-ID (V): 225026			
Package-ID (3S): M112024032601			
MAT-Label as Masterlabel			

4.19.3 Master Label Location

The standard location for Master Label (standard VDA or ODETTE, as well as MAT-Label in master version) is the short side of the loading unit.

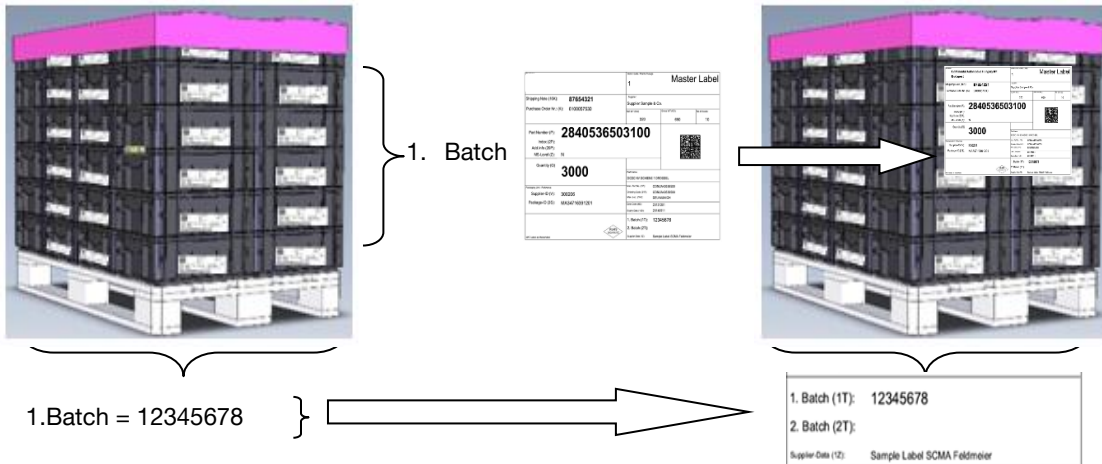
4.19.4 Batch mapping on MAT-Label as master label

Maximal two batches can be considered per loading unit (pallet or container) marked with a MAT-Label in master version.

The master label consolidates the data on each single label on or in the with master label marked loading unit. Therefore, it is not permitted, that a batch number on single label exist, which is not stated on the master label.

Sample:

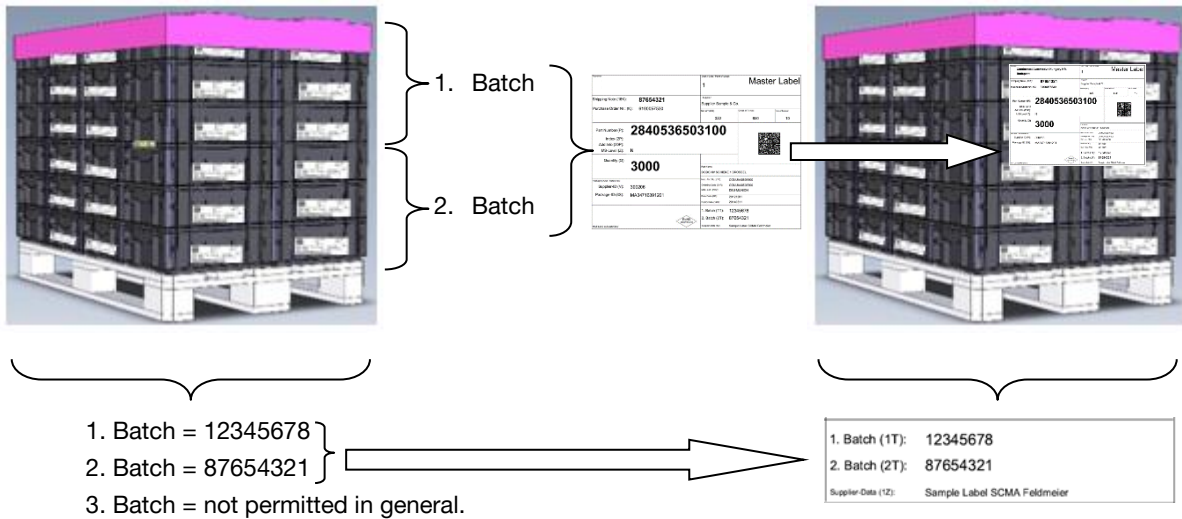
1. All single labels on pallet refer to one batch:



2. Batch does not exist in this pallet. All single labels have the same batch number.

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2. Single labels on pallet refer to different batches:



4.19.5 Master Label on loading unit (pallet, container) which shall be understood as single unit

This is basically not a “master unit”. It might be a large single unit. Therefore, the definition “Master Label” is not correct and the packaging unit has to be marked with a MAT-Label in single version. Package-ID on this single label starts with “S”. For more detailed explanation, on usage of single label per pallet see chapter 6.

4.19.6 MAT-Label as mixed label

A MAT-Label in mixed version (different part numbers in one loading unit) is undefined. A MAT-Label refers to one specific packaging unit and part number, therefore a MAT-Label in mixed version is not provided.

In case of using a mixed load (if permitted by goods receiver) a “Mixed Load Label” can be used, according to VDA, ODETTE, AIAG or GALIA specification, see sample in chapter 7.1).

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5 2D-Label (PDF417-Label)

The 2D-Label (synonym is PDF417-Label) is still requested by some plants worldwide.

The request for implementation as well as the approval process is plant specific. Only upon general or plant specific approval to the 2D-Label, it shall be used for the plant concerned.

5.1 Approval process

If the 2D label of a supplier was approved (general released) by a plant within Vitesco Technologies and the approval is based on the requirements that are listed in the following, then basically the approval is also valid for all other plants which request this type of label.

The approval is not meant to imply, that the customer given data and data formats are the same to other orders and plants. Customer given data (such as customer part number, index (material revision), vendor number (supplier-id)) remain plant specific.

5.2 2D-Label for the smallest packaging unit

The part packaging (smallest packing unit) is usually the packing unit which does not contain any sub-packaging. The 2D-Label is basically designated for this type of packaging. See chapter 6.

Other definitions related to part packaging have to be coordinated with the receiving plant per concerned part number. Any smallest packaging unit must be marked with a 2D-Label (PDF471-Label) in a way, that the label and code is easy reachable.

5.3 Size and Layout

Size and layout depend on the packaging unit. Initially, the supplier can specify and suggest a size and a layout of the 2D-Label under consideration of all the requirements in the following.

Vitesco Technologies reserves the right to disagree with the size and layout of the 2D-Label.

5.4 Label position

- Expendable Material:

In general, the package label has to be permanently attached (exception, removable label for Dry Pack, see chapter 6 and 8).

- Returnable boxes or packaging solutions:

In general, the 2D-Label shall not be attached permanently and over the entire surface. The attachment of labels with bonding dots is permitted. The label and its attachment (bonding dot) must be removable without residue.

The label shall not cover any other supplier created data and labels on the packaging, if possible. It must be placed on smooth surface and shall be easily reachable to scan the code.

In order to get a readable code, the label shall not be attached on concave or convex surfaces. A placement "around a corner" is not permitted.

It must be ensured that the label will not be damaged during opening of the packaging and the code should remain readable.

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5.5 Package Label as Single or Master Label

The data field “Package-ID” defines whether the label is standing for a single unit (smallest packaging unit with single label) or refers to a pallet or container (loading unit with master label).

If the label is a **single label**, which is attached on each smallest packaging unit, then the Package-ID must start with an “**S**”.

If the label is a **master label** referring to a loading unit (possible in exceptions) then the Package-ID must start with an “**M**”.

5.6 Description and requirements on the printed data fields on 2D-Label

Within the code (PDF417) all the data fields are mandatory. Whether and how to print the individual data fields on label is described in detail referred to below requests.

5.6.1 Revision Level

This piece of information is part in the code (PDF417); however, it **shall not be printed** on the label. The version number is a fixed entry in the code and is predefined by the customer. The current number is 0001.

5.6.2 Supplier Part No.

The part number assigned by supplier can be printed up to a length of 35 characters (alphanumeric), if the supplier needs it for own processes. It is not necessary to designate this field via field header.

5.6.3 Customer Part No.

The part number assigned by customer **must be printed**. The maximum field length is

18 characters (alphanumeric). The format and design of the customer part number must be analog to the order.

It is necessary to designate this field with field header. The customer part number **must be highlighted** (e.g., by using bold font).

5.6.4 Ordering Code

The Ordering Code **must be printed**. The maximum field length is **35 characters** (alphanumeric). It is not necessary to designate this field via field header.

The content in field Ordering Code refers to plant specific requests. It can be the mutual agreed Ordering Code to the individual part, or it can be the supplier part number with, or without adaptations. It can also repeat the customer part number or differ from this number (e.g., by adding an index).

5.6.5 Part Name

The part name **must be printed**. The part name describes the type of the part. The maximum field length is 35 characters. In case of no requirement from the order, the part name assigned by supplier must be used or in exception a triple X (XXX) must be printed.

The part name is requested to print and is not requested as content in the code (PDF417). Dimensions and position of letters must be adjusted to the label layout. The part name must be easy to read. It is not necessary to designate this field via field header.

5.6.6 Additional Part Information

If an additional part information is required by the goods receiver, this information must be printed and encoded (PDF417). The maximum field length is **18 characters** (alphanumeric). It is necessary to designate this field via field header. The headline also can be abbreviated as “Add. Info”.

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It is necessary to reserve place for this field and to print the field header, even if no data are defined or exist.

5.6.7 Index (material revision)

The index (material revision) **must be printed**, if an index is required. The **field length is fixed to 3 characters (in code) and 2 characters (printed)** (alphanumeric). It is necessary to designate this field via field header, even if no index was defined or exists.

The index standing for material revision is always identified with a leading character “E” as content in the code (E is standing for the German word: Erzeugnisstand). It is prohibited to print this only in code existing leading character “E”.

Samples of contents:

No index	→	in code: E<blank><blank>	printed:
Index is A	→	in code: EA<blank>	printed: A
Index is 01	→	in code: E01	printed: 01
Index is E	→	in code: EE<blank>	printed: E

5.6.8 Quantity

The quantity **must be printed**. The maximum field length is **12 numeric characters** with optional **3 digits after the comma**. Separating decimals are only permitted when using a comma and up to three digits afterwards. Avoid leading zeros.

The quantity must be **highlighted** (e.g., by using bold font). It is necessary to designate this field via field header.

Thousand separators (dots) can be added to recognize thousands of places. However, these separators are not permitted in the code (PDF417).

If a distinction between encoded and printed format is not possible, then the quantity must be printed without separators, too.

In case of two batches in one packaging unit, two 2D-Labels with the identical Package-ID are necessary (see chapter: 5.6.25). The quantity on both labels is the same and refers to the total quantity and not (!) to the differing quantity per batch in the packaging unit.

5.6.9 Shipping Note Number

The shipping note number (dispatch reference number) must be printed. The maximum field length is 12 characters (alphanumeric). It is necessary to designate this field via field header.

The length and format of the shipping note number must match the used shipping note number and format on the shipping note.

There shall not be any differences between the shipping note number on the 2D-Label and on the shipping note. Both numbers must be equal, also in the format (e.g. leading zeros).

5.6.10 Supplier-ID (Vendor Number)

The Supplier-ID (vendor number) **must be printed**. The maximum field length is **10 characters** (alphanumeric). It is necessary to designate this field via field header.

The vendor number must be taken from the individual order and the same format and length must be used on the 2D-Label.

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The field Supplier-ID must be located on left in one line together with the Package-ID (in the middle) and the Batch-ID (on right).

5.6.11 Package-ID

The Package-ID **must be printed**. It is necessary to designate this field via field header.

The mandatory field length is fixed to **17 characters** (alphanumeric), whereas 12 characters are available for the variable Package-ID. The others are pre-defined.

The Package-ID must be unique for each vendor number and marked packaging unit.

The first leading character identifies the type of label (see chapter 5.5). A single label (on smallest packaging unit, which is usually the case), is identified with a leading “S” (without quotes) in the Package-ID.

A master label (label on loading unit, used in exception), is identified with a leading “M” (without quotes) in the Package-ID.

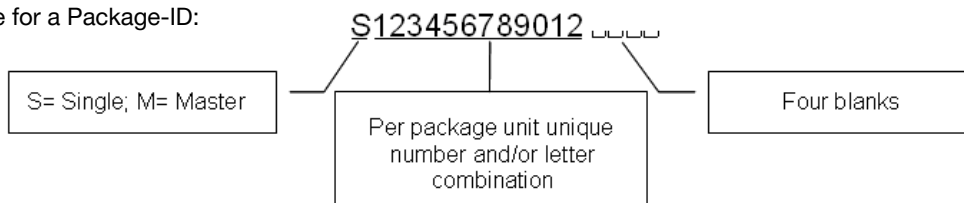
The next 12 alphanumeric characters can be freely assigned by the supplier. The only request is that the combinations of these 12 characters never repeat in relation to the vendor number and the packaging unit.

The last four digits must be filled with blanks to reach the requested 17 characters. Other characters as four blanks are not permitted to fill the field.

If a packaging unit contains two batches, then two labels must be printed based on the different batches. Due to the fact, that both labels identify the same package, the Package-ID remains the same on both labels. Only the Batch-ID and the batch number on both labels are different (see: 5.6.25)

The field Package-ID must be in one line with and in the middle of vendor number and Batch-ID.

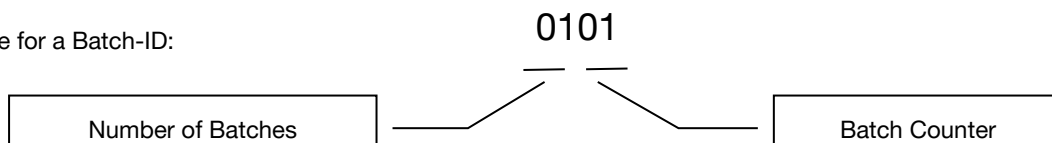
Example for a Package-ID:



5.6.12 Batch-ID

The Batch-ID must be printed. The mandatory length of fields is fixed to **4 characters** (numeric). It is necessary to designate this field via field header.

Example for a Batch-ID:



The Batch-ID is not to be confused with the Batch Number. The Batch-ID helps to determine the number (quantity) of batches in the packaging unit and to match the individual batch to the dedicated label. Maximum two batches are permitted in a smallest packaging unit.

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The first two digits in the Batch-ID show the quantity of batches (how many batches are inside?). The third and fourth digit identifies the label on package unit (first or second label).

Example: Packaging unit contains only one batch (which is the standard request)

0101	This Batch-ID shows that the packaging unit contains only one batch. 0101 give the information: There is one batch inside and I currently read the first label on packaging unit to that batch.
------	---

Example: Packaging unit contains two batches:

In this case two labels are necessary on the packaging unit. Only the Batch-ID and the Batch Number differs on both labels; other data remains untouched.

0201	This Batch-ID shows that the packaging unit contains two batches. 0201 give the information: There are two batches inside and I currently read the first label of the requested two. Reading of a label with the same Package-ID and Quantity and with Batch-ID 0202 is mandatory which must have a different Batch Number.
0202	This Batch-ID shows that the packaging unit contains two batches. 0202 give the information: There are two batches inside and I currently read the second label of the requested two. Reading of a label with the same Package-ID and Quantity and with Batch-ID 0201 is mandatory which must have a different Batch Number if not done so far.

The field Batch-ID must be in one line with Supplier-ID and Package-ID and to the right of the Package-ID.

5.6.13 Expiry Date

The field Expiry Date **must be printed**. The mandatory field length is **10 characters** (numeric) **printed and 8 characters encoded**. It is necessary to designate this field via field header.

For each part/component an expiry date must be defined. The expiry date is basically regulated in the GQA (general quality agreement), the category quality requirements (CQR) or in the individual part specification.

It is in the supplier's responsibility to set a correct date of expiration based on quality regulations.

The expiry date must be printed in the format DD.MM.YYYY. D=day, M=month, Y=year. The expiry date as content in code shall be formatted without dots.

Example:

Expiry Date is 22 May 2015. →Printed: 22.05.2015 →Encoded: 22052015

If a distinction between encoded and printed format is not possible, then the Expiry Date must be printed without separators, too.

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5.6.14 Date Code / Date of Manufacture or Dispatch

The field Date Code **must be printed**. The maximum field length is **9 characters** (alphanumeric). It is necessary to designate this field via field header.

The date of manufacture or dispatch can be formatted in different ways. Separating dots such as in the expiry date are not permitted. Depending on the chosen format, which can be in day, week or month format, the first (leading) character must be D, W or M.

Definition of date format:

D (Day) = YYYYMMDD (Example: D20021125)

W (Week) = YYWW (Example: W0248)

M (Month) = YYYYMM (Example: M200211)

If the supplier traces the batch based on date code (date of manufacturing), then the date code must be repeated in field "Batch Number" in a from supplier chosen format.

5.6.15 Batch-No. (LOT-No., Suppliers Traceability)

The Batch Number **must be printed**. The maximum field length is **17 characters** (alphanumeric). It is necessary to designate this field via field header.

This field contains the traceability reference assigned by supplier. The supplier must be able to retroactively provide information about the batch (e.g., volume, production, inspection results and delivery) with the help of this combination of numbers / characters in field Batch-No.

The general or part-specific requirements (if latest exists) pertaining to traceability must be considered. Please contact the responsible buyer if you have any questions regarding this matter.

5.6.16 Moisture-Level

The field moisture level **must be printed**. The field length is fixed to **2 characters** (alphanumeric). It is necessary to designate this field via field header.

If the part is moisture sensitive, then the MS-Level (Moisture-Level) must be printed based on industrial standard IPC/JEDEC J-STD-020. This usually applies to electronic components.

If the part is not moisture-sensitive and the standard PIC/JEDEC J-STD-020 is not applicable (mainly at mechanic parts), then the letter "N" must be printed (for not moisture sensitive).

In case of a one-digit content (like 1, 2, 3, 4, 5, 6 and N), the field must be filled with a blank as second character.

5.6.17 Supplier Data

If the supplier wants (or must) store own information on label, this field with maximum length of 35 characters can be used as optional field. It is necessary to reserve place for this field and to specify the field, even if no data are defined or exist.

5.6.18 Location of PDF417-Code on label

The 2D code must be placed either horizontally or vertically considering of minimum mandatory quite zone around the code.

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5.6.19 Size of PDF417-Code

In consideration of print parameters and code specifications, the size of the code depends on the prevailing data content. Therefore, it is mandatory to reserve enough free area around the code.

5.6.20 Print Parameters

- Code type PDF417 (based on ISO/IEC15438)
- Printer resolution..... min. 300 dpi
- Error correction level..... Level 5
- Module width X..... min. 0.25 mm (= 10 mil)
- Module height..... min. 3 X
- Row space left and right..... min. 10 X
- Row space above and below the code..... min. 4 X
- Code width..... max. 70 mm
- Code height..... max. 35 mm

5.6.21 Data Syntax

Data syntax: based on ISO/IEC 15434
Data format indicator: 06 (usage of data identifiers)

5.6.22 Data Contents and Data Syntax based on ISO/IEC 15434

The required data syntax is described in the specification ISO/IEC 15434.

Blanks are sometimes requested in pre-defined data fields to reach the necessary fixed field length. Filling blanks are always located behind characters. Blanks are permitted, if they are part of the data format.

5.6.23 Data Content and Data Identifier

The following table lists the data fields, data length, data format and data identifiers which are mandatory in the data syntax. **All fields are mandatory fields.**

If a field is indicated as optional, then this refers to the data content and not to the data field. That means that the associated data identifier must be available also in as optional marked data fields.

List of data fields and its conditions:

<i>Data Field</i>	<i>Data Identifier Always mandatory</i>	<i>Length</i>	<i>Fixed Data</i>	<i>Mandatory / Optional</i>	<i>Format</i>
Revision level	12S	4	0001	Mandatory	N
Part number of the supplier	1P	Max. 35		Mandatory	A/N
Customer part number	P	Max. 18		Mandatory	A/N
Ordering code	31P	Max. 35		Mandatory	A/N
Additional part information	20P	Max. 18		<i>Optional</i>	A/N
Index *)	2P	3	E *)	Mandatory	A/N
Content, quantity	Q	Max.12,3		Mandatory	N

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Shipping note number	16K	Max. 12		Mandatory	A/N
Vendor number	V	Max. 10		Mandatory	A/N
Package-ID	3S	17		Mandatory	A/N
Batch-ID	20T	4		Mandatory	N
Expiry date	15D	8		Mandatory	DDMMYYYY
Date of manufacture or dispatch	9D	9		Mandatory	Day = DYYYYMMDD Week = WYYYYW Month = MYYYYMM
Batch-No.	1T	Max. 17		Mandatory	A/N
MS-Level	Z	2		Mandatory	A/N
Supplier Data	1Z	Max. 35		<i>Optional</i>	A/N

N = Numeric, A/N = Alphanumeric, D =day, M = month, Y = year

Max = the minimum length of characters is one; the maximum is the specified number of characters.


The maximum number of characters does not mean that leading zeros or blanks must be used for instance to fill the remaining places in order to reach this number.

The revision level is a fixed entry and serves the recognition of the label or its version.

*) The index starts with a fixed "E" (for product index). Next, the index must be added with a maximum number of two characters.

If no index was planned or defined, two blanks must be added after the pre-defined "E".

5.6.24 Samples of 2D-Label layouts (size not to scale)



Suppliername Sample & Co
SMT-R170-2.0 5% TK200 1W 0207
15 154 750 / SMT_CHIP


Partno.:	Quantity:	Index:
A2C00004387	2000	02
DateCode:	Batch-No.:	
D20021120	0247 178M47	
Supplier-ID	Package-ID	Batch-ID
10227	SA00000123401	0101
Shipping Note	MS-Level	Expiry Date
7800D201102	5a	28.02.2004

Ordering-Code: SMT-R170-2.0
Add.Info:
Supplier Data:

Suppliername Sample & Co
SMT-R170-2.0 5% TK200 1W 0207
15 154 750 / SMT_CHIP

Shipping Note	Partno.:	Quantity:	
7800D201102	A2C00004387	2000	
Ordering-Code		Index:	
SMT-R170-2.0		02	
Date-Code:	Supplier-ID	Package-ID	Batch-ID
D20021120	10027	SA00000123401	0101
Batch-No.:	MS-Level:	Expiry-Date	
0247 178M47	5a	28.02.2004	

Add.Info:
S-Data:






Partno.:	A2C00004387
Quantity:	2000
Index:	02
MS-Level:	5a

Leuchtdiode 54 141 013
Add.Info: 50030 20

Supplier-ID	Package-ID	Batch-ID	ShippingNote
10227	SA00000123401	0101	54003333
Batch-No.:	Date Code	Expiry Date	
1000551111	W0318	28.02.2005	

Ordering Code: LB T676-P2Q2-1-0
SupplierData:
Suppliername Sample & Co




Suppliername Sample & Co	Leuchtdiode 54 141 013		
Partno.:	Quantity: Index Add.Info MS-Level		
A2C52002865	2000 F P2 N		
Supplier-ID	Package-ID	Batch-ID	Expiry Date
8800282	S123456789012	0101	28.02.2005
SupplierData:	Ordering-Code	Shipping Note	DateCode
	LB T676-P2Q2-1-0	54003333	W0318

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			Partno.: A2C53293714
			Quantity: 205
			Index: 01 Expiry Date: 12.04.2010
			Batch-No.: 123456_LOT
			Shipping No: 6398711
			Date Code: M200804 MS-Level: N
			Add. Part Info:
			Halteplatte
Supplier-ID	Package-ID	Batch-ID	
9065256	S123456789012	0101	
Ordering Code: A2C53293714/01			
Supplier Data:			

			Supplier: Sample & Co.
			Part-Nr.: A2C00004387 Index: MS-Level: N
			Quantity: 60 Add. Part Info:
Order.- Code: I-4790-35			
Supplier-ID	Package-ID	Batch-ID	
8327809	S414017293601	0101	
Batch-No.: F-589A /2			
Shipping No: 2014 A05817			
Date Code: D20140520 Expiry Date: 13012015			
Cover			

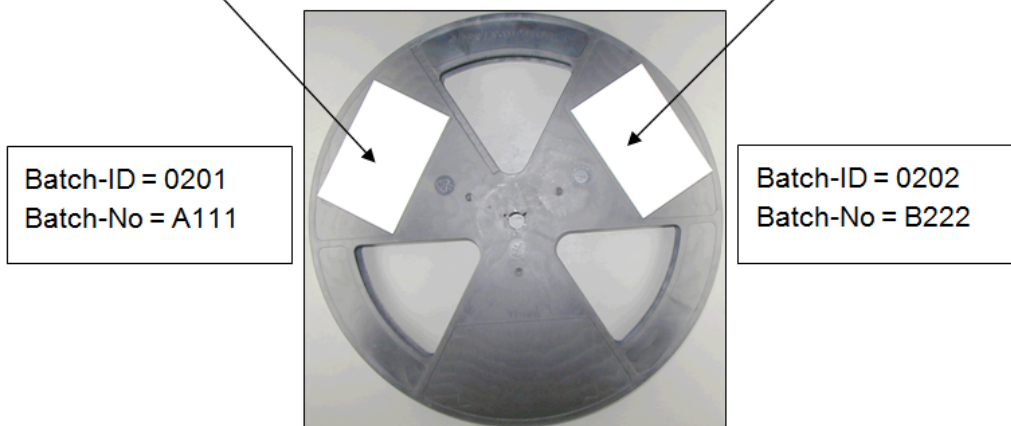
5.6.25 Example to a packaging unit which contains two batches

Data to packaging which contains two batches:

Quantity: 2000 pieces
 First Batch: A111
 Second Batch: B222

				Partno.: A2C00004387
				Quantity: 2000
				Index: 02
				MS-Level: 5a
Leuchtdiode	54 141 013			
Add. Info:	50030 20			
Supplier-ID	Package-ID	Batch-ID	Shipping Note	
10227	SA00000123401	0201	54003333	
Batch-No:		Date Code	Expiry Date	
A111		W0318	28.02.2005	
Ordering Code: LB T676-P2Q2-1-0				
Supplier Data:				
Suppliername Sample & Co				

				Partno.: A2C00004387
				Quantity: 2000
				Index: 02
				MS-Level: 5a
Leuchtdiode	54 141 013			
Add. Info:	50030 20			
Supplier-ID	Package-ID	Batch-ID	Shipping Note	
10227	SA00000123401	0202	54003333	
Batch-No:		Date Code	Expiry Date	
B222		W0318	28.02.2005	
Ordering Code: LB T676-P2Q2-1-0				
Supplier Data:				
Suppliername Sample & Co				



If a packaging unit contains two batches, two 2D-Labels are mandatory on this unit as shown above. The most data contents are equal (also the quantity and package-id).

Only the Batch-ID and of course the value in field Batch-Number differs.

The value in field "Batch-ID" is pre-defined in this case, see "definition of Batch-ID".

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6 Definition of the smallest packaging unit (for 2D- and MAT-Label)

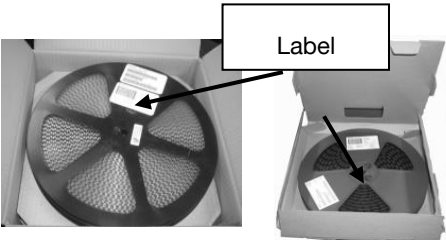
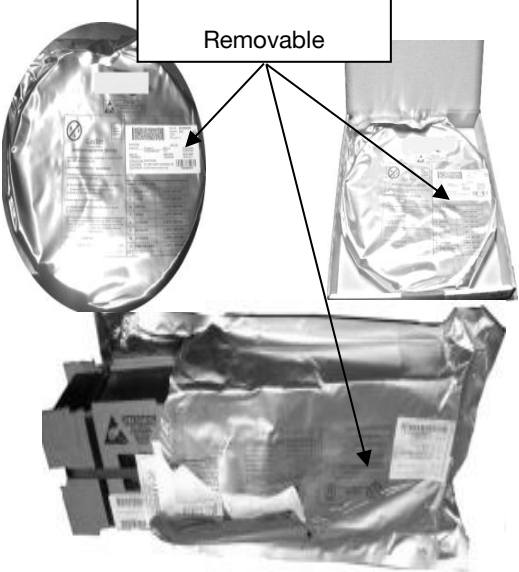
Regarding marking of goods with 2D- or MAT-Label, the smallest packaging unit is basically the one, which covers the parts inside directly. It usually contains no further sub packaging.

At Vitesco, a plant specific exception can be made, if requested by VT plant, for a loading unit (e.g. pallet) carrying further smaller packaging units (e.g. boxes) or trays, if the following prerequisites are fulfilled:

- The loading unit is replenished always as full unit (e.g. full pallet) to production.
- The replenishment point is directly at the line.
- The consumption time of the loading unit at the line is below 1 shift.
- All relevant local stakeholders, such as Q and IT, agree to this approach.





If those requirements are kept, the whole loading unit (e.g. pallet) itself can be understood as smallest packaging unit and can be marked with one single label, without the need to mark the smaller packaging units on it separately. For a single label, the Package-ID always starts with "S".

In general, following packaging units are defined as the smallest one for marking of goods with 2D- or MAT-Label (samples):

	<p>Each separate and unprotected reel needs its own single label.</p> <ul style="list-style-type: none"> - Not the packaging outside. - Not the so called "Pizza box".
	<p>In case of moisture sensitive parts, the protection bag is defined as smallest packaging unit with a single label.</p> <ul style="list-style-type: none"> - Not the packaging outside. - Not the reel or other package unit inside. - Not the so called "Pizza box" <p>The label must be removable (peel-off or sandwich label)".</p> <p>It must be easy and intact removable from the protection bag.</p> <p>Only one subunit (e.g. reel) per protection bag is allowed.</p>

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Inside:

Multiple sub packages inside returnable boxes need an individual single label, if the units are:

- bundled or in
- single closed packaging and are
- prepared to take out separately.



Each sub package (multiple or not) inside expendable packaging needs an individual single label, if it is:

- bundled or in
- single closed packaging and is
- prepared to take out separately.

PCB:
Using expendable packaging:
→ Single label per brick in general.

Using returnable packaging:
→ Single label per brick in general and
→ MAT-Label in master version per pallet.

Inside:


Each jar with soldering paste needs an individual single label. That is independent of the outside packaging. The preferred place for the label is the lid on top of the jar.

The layout of MAT-Label is reduced.
Printed data fields are:

- Customer Part number and Quantity
- Supplier-ID and Package-ID
- Expiry Date and Batch Number (LOT)

The Batch-Number and the Expiry Date on the MAT-Label must be the same as on the supplier production label at the circumference of the jar.

Inside if possible:



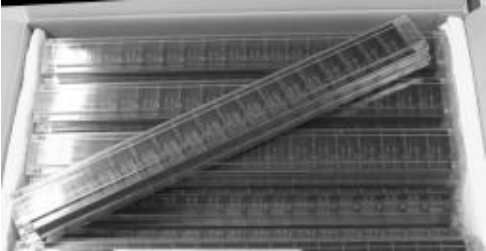



Chemical products in cartridges, syringes or jars need a single label on the smallest packaging unit wherever possible.

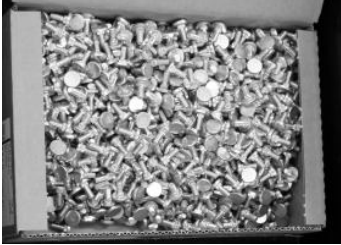

Risk and safety phrases as well as symbols may not be covered. If it is not enough free place directly on the cartridge, then the next packaging unit with a small number of cartridges inside needs to be labeled.

By jars, the preferred place for the label is the lid on top of the jar, see above.

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<p>Inside/Outside:</p> 	<p>Multiple sub packaging units (e.g., trays) can, in alignment with the receiving VT plant, also be labeled outside on the next packaging unit, if the units are:</p> <ul style="list-style-type: none"> - not bundled or - not separately closed - not wrapped in protection packs - not self-supporting <p>In this case the label outside (the next packaging unit) refers to the whole number of parts inside.</p> <p>If requested by the receiving VT plant, labels must be placed on the smallest packaging unit (e.g. trays) itself.</p>
<p>Outside:</p> 	<p>In case of returnable boxes, the label can be attached outside on the box, if:</p> <ul style="list-style-type: none"> - only one sub packaging exists, which fill-out the packaging completely and in case of no otherwise request.
<p>Outside:</p> 	<p>Independent of returnable or expendable boxes, small multiple tubes are basically labeled outside on the next packaging unit, if they are:</p> <ul style="list-style-type: none"> - not bundled or - not wrapped in protection packs <p>In this case, the label outside (the next packaging unit) refers to the whole number of parts inside.</p> <p>If tubes are bundled or wrapped, then the bundle or protection bag needs a single label.</p> <p>Each single tube needs its individual single label, if the tube dimension fits to a small MAT-Label.</p>
<p>Outside:</p>  <p>(Pallet with returnable boxes and single labels)</p>	<p>Returnable boxes or expendable packaging units are defined basically as the smallest one, if the box or cardboard box contains no separate subunits, as described above.</p> <p>Returnable boxes or other as smallest packaging defined units must be labeled with a single label in such a way, that the label and code on label is easy reachable.</p>

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 <p>(cardboard box as smallest packaging unit)</p>	<p>It is not permitted to cover other labels or codes like box or container identification codes on returnable packaging units.</p> <p>An exception is possible after detailed description and agreement in the part specific packaging data sheet (see N 098 00 01.000)</p>
<p>Outside:</p> 	<p>Fix volume containers or pallets (loading units) must be marked with a single label, only if:</p> <ul style="list-style-type: none"> - This unit is defined as the smallest packaging unit. <p>This regulation (loading unit marked with single label) is part and plant specific.</p>

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7 VDA-Label (according to VDA 4902 standard)

This type of label is based on a recommendation of the German Association of the Automotive Industry (VDA), called VDA 4902 Version 4.

Sample of VDA-Label (not to scale, original 210 x 148 mm on master, 210 x 74 mm on single label):

(1) Warenempfänger Customer Sample AG 93055 Regensburg	(2) Abladestelle - Lagerort - Verwendungsschlüssel W0001 S		
(3) Lieferschein-Nr (N) 23267620 	(4) Lieferantenanschrift (Kurzname, Werk, PLZ, Ort) Supplier Sample & Co.		
	(5) Gewicht netto 157	(6) Gewicht brutto 250	(7) Anzahl Packstücke 48
(8) Sach-Nr Kunde (P) 1005070106100 			
(9) Füllmenge (Q) 4800 	(10) Bezeichnung Lieferung, Leistung Ventilschraube		
	(11.1) Sach-Nr. Lieferant: PIA-SA		
(12) Lieferanten-Nr (V) 47111 	(11.2) Packmittel Kunde: 9810000000000		
	(13) Datum D080311	(14) Änderungsstand Konstruktion 21-00000000	
(15) Packstück-Nr (M) 123456789 	(16) Chargen-Nr (H) 2008031101 		
(17) Supplier Sample & Co. DE-69999 Sample City	Warenanhänger VDA 4902, Version 4		

(1) Warenempfänger-Kurzadresse Customer Sample AG 93055 Regensburg	(2) Abladestelle - Lagerort - Verwendungsschlüssel W0001 S	(3) Lieferschein-Nr (N) 23267620
(8) Sach-Nr. Kunde (P) 1005070106100 		
(9) Füllmenge (Q) 100 	(10) Bezeichnung Lieferung, Leistung Ventilschraube	
	(11.1) Sach-Nr. Lieferant (30S) PIA-SA	
(12) Lieferanten-Nr (V) 47111 	(11.2) Packmittel Kunde: 9800000000000	
	(13) Datum D080311	(14) Änderungsstand Konstruktion 21-00000000
(15) Packstück-Nr (S) 987654321 	(16) Chargen-Nr (H) 2008031101 	

If a plant request this type of label (VDA 4902 label), then following instructions are valid:

Each handling unit (box, bin, carton) delivered to Vitesco Technologies shall be marked with a VDA 4902 Single Label. Loading units (pallets, containers) shall be marked with VDA 4902 Master Label. Any old labels or internal markings of suppliers shall be removed prior to shipment. Any deviations from these requirements shall be subject to mutual agreement between the supplier and the purchaser.

In the event of any modifications to parts, the additional data specified in the order documents shall be entered in field 14. The first three deliveries of parts with a new revision status shall also be marked with a part change notification sheet.

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The objective is to record the data of incoming goods automatically using bar codes when the SAP R/3 system is introduced. For this purpose, it will be essential for suppliers to comply with the requirements stated in this document.


7.1 Mixed Load Unit

Only one-part number is allowed in one smallest packaging unit (box, carton). Mixed part numbers in one manual handled unit (e.g. KLT) is not allowed. But mixed part numbers in one loading unit may occur.

If it is not possible to make up a complete loading unit with only one article number (because an insufficient number of packaging units has been ordered), boxes with different article numbers may be made up into a mixed load unit (pallet, shipping container) if the concerning plant accepts mixed load units.

In such cases, each individual box (or carton) shall be marked with a single label and the loading unit shall be clearly marked as a mixed loading unit, using a VDA master label with the text "mixed load" in field (8) part number (German = Sach-Nr. Kunde).

Sample of a mixed load label in VDA 4902 format (not to scale):

(1) Warenempfänger Customer Sample AG 93055 Regensburg		(2) Abladestelle - Lagerort - Verwendungsschlüssel W0001 S		
(3) Lieferschein-Nr (N) 23267620 		(4) Lieferantenanschrift (Kurzname, Werk, PLZ, Ort) Supplier Sample & Co.		
		(5) Gewicht netto 157	(6) Gewicht brutto 250	(7) Anzahl Packstücke 48
Mixed Load				
(9) Füllmenge (Q) 4800 		(10) Bezeichnung Lieferung, Leistung		
		(11.1) Sach-Nr. Lieferant:		
(12) Lieferanten-Nr (V) 47111 		(11.2) Packmittel Kunde: 9810000000000		
		(13) Datum D080311	(14) Änderungsstand Konstruktion	
(15) Packstück-Nr (G) 123456790 		(16) Chargen-Nr (H) 		
(17) Supplier Sample & Co. DE-69999 Sample City		Warenanhänger VDA 4902, Version 4		

7.2 Positioning of Label

All labels shall be clearly visible from the outside. Tags shall not be glued on returnable packages. All labels shall be sufficiently robust to ensure that they can be read both manually and automatically (by barcode readers) when the material is delivered. Tags shall remain legible for at least three months (no ageing caused by exposure to light).

In order to ensure that barcodes are readable both manually and by barcode readers, labels shall be positioned horizontally. Any fasteners used for a label shall not impair its legibility (the blank space required around barcodes shall be considered).

7.3 Rules for placing labels at GLT

If a label holder is available, it shall be used. If not, the requested location for label is the shorter side at the left, upper corner at the packaging unit.

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8 Marking of Dry Pack Packaging

Moisture sensitive components (in “Dry Pack”) must be marked with appropriate stickers based on industrial standard IPC/JEDEC J-STD-020 resp. IPC/JEDEC J-STD-033 in addition.



IPC-033c-3-3

See sample on right (moisture sensitive identification label):

In case of Dry Pack, the 2D- or MAT-Label itself must be undestroyed removable from the protection bag.

Peel able label material such as so called “sandwich labels” are requested for 2D- or MAT-Label.

Only one packaging unit inside (e.g. reel) is allowed per Dry Pack Package.

Caution
This bag contains
MOISTURE-SENSITIVE DEVICES

LEVEL

If blank, see adjacent bar code label

1. Calculated shelf life in sealed bag: 12 months at <40°C and <90% relative humidity (RH)
2. Peak package body temperature: _____ °C
If blank, see adjacent bar code label
3. After bag is opened, devices that will be subjected to reflow solder or other high temperature process must be
 - a) Mounted within: _____ hours of factory conditions
If blank, see adjacent bar code label
≤30°C/60% RH, or
 - b) Stored per J-STD-033
4. Devices require bake, before mounting, if:
 - a) Humidity Indicator Card reads >10% for level 2a - 5a devices or >60% for level 2 devices when read at 23 ± 5°C
 - b) 3a or 3b are not met
5. If baking is required, refer to IPC/JEDEC J-STD-033 for bake procedure

Bag Seal Date: _____
If blank, see adjacent bar code label

Note: Level and body temperature defined by IPC/JEDEC J-STD-020

9 Additional Requirements

The following marking can also become necessary according to circumstances in addition to the above requirements.

9.1 Special marking for time critical goods

This type of marking must be coordinated with the receiving plant before delivery, or it is generally regulated in the additional plant specific requirements.

9.2 Special marking based on specific request

Pre-defined markings shall be supported, after mutual agreement.

9.3 Marking of packaging for electronic parts and components

Each ESD protection unit must be marked with the appropriate ESD-Symbol based on IEC 61340-5-3.



10 Additional 2D-Code on Delivery Note

The delivery note (synonym dispatch note, packing slip, shipping note) must contain a Data Matrix Code (DMC ECC200) with following information:

Data field:	Data Identifier
Shipping Note Number	16K
Purchase Order Number	K

In exception, the code type PDF417 is permitted after mutual agreement. The data syntax must be created based on ISO /IEC 15434 with format indicator 06.

Basic requirement is: One purchase order number per shipping note.

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The syntax in code looks like following.

$] > ^{R_s} 06 ^{G_s} 16 K \text{Shipping-Note-Number} ^{G_s} K \text{Purchase-Order-Number} ^{R_s} E O_T$

In exception, several purchase order numbers per shipping note are permitted such as if the length of the shipping note does not exceed one page.

The following shows the data syntax for three purchase order numbers:

Abbreviations:

Shipping Note Number = SN-No.
Purchase Order Number = P.O.-No.

$] > ^{R_s} 06 ^{G_s} 16 K \text{SN-No.} ^{G_s} K \text{P.O.-No.} 1 ^{R_s} 06 ^{G_s} 16 K \text{SN-No.} ^{G_s} K \text{P.O.-No.} 2 ^{R_s} 06 ^{G_s} 16 K \text{SN-No.} ^{G_s} K \text{P.O.-No.} 3 ^{R_s} E O_T$

First purchase order
Second purchase order
Third purchase order

The shipping note number (SN-No.) remains the same for all three data records, only the purchase order number (P.O.-No.) changes depending on the referring order.

The code on shipping note must be implemented and provided for approval during the development and implementation of the 2D- or MAT-Label.

Sample of 2D-Code on delivery note:

Code (red circled) contains:

$] > ^{R_s} 06 ^{G_s} 16 K 183688 ^{G_s} K 6100038916 ^{R_s} E O_T$

Shipping Note Number = 183688
Purchase Order Number = 6100038916

11 REVIEW

The members of the Review Team have reviewed the rule, and their feedback has been considered. The Responsible Function keeps records about the review.