

Company Standard



CN 855228-1

2010-08

ICS 21.020

Delivery standard
Purchased series parts

Part 1: Supplier Manual Logistics

Delivery standard
Purchased series parts – Supplier Manual Logistics

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Amendments

Former specification called SML (Supplier Manual Logistics) has become a new Continental Standard published as CN 855228-1 (this specification).

The CN 855228-1 is a full update to the prior Supplier Manual Logistics. Therefore it is not indicated to pick up only several changed points.

Former Editions

SML Supplier Manual Logistics

1. Introduction

With its trendsetting systems technology, the Automotive Group of Continental AG (concerning this manual referring to all legal entities within the Continental Automotive Divisions, Chassis & Safety, Interior, Powertrain – thereafter Continental) makes a convincing and decisive contribution worldwide to the optimization of safety, reliability, economic viability, environmental compatibility and convenience of modern motor vehicles.

Logistic procedures and processes are becoming increasingly important in relationships between Continental and suppliers. CN 855228-1 (thereinafter manual) aims to standardize and continuously improve procurement processes involving Continental and suppliers. These improvement and standardization actions are basis for creation of transparency in the logistics processes in Continental supply chain and all parties should benefit from them. This manual is intended as a work of reference which suppliers can use to clarify any difficulties and questions which may arise. The supplier shall undertake all necessary actions to meet the logistics requirements stated in this manual. Compliance with the content is essential and will impact future sourcing decisions. It is therefore recommended that suppliers inform all responsible members of their staff of the contents of this manual.

This manual shall apply to all worldwide activities of Continental and all deliveries to worldwide destinations of Continental. This manual is part of the currently valid purchasing agreement between the supplier and Continental and states binding requirements for logistic processes and procedures. Except otherwise expressly laid down in the currently valid purchasing agreement, the supplier shall undertake to meet the requirements stated in this manual. In the event that any of the provisions of this manual is ineffective, the other provisions of this manual shall remain in full force and effect. In case of conflicting rules between the rules of this manual and any other written agreement between the supplier and Continental, it must be decided case by case which document shall prevail.

CN 855228-1 supersedes the former "Supplier Manual Logistics", version 1.0, from June 01, 2008 in its entirety. Due to changing framework conditions, it will be necessary to adapt the logistics requirements from time to time. The suppliers of Continental are obliged to keep the version updated.

2. Preferred Sourcing Models

The Supplier shall deliver the contract products according to the preferred sourcing model which is chosen by the respective Continental production plant.

The following preferred sourcing models apply:

- Vendor Managed Inventory (VMI) consignment warehouse
- Customer Managed Inventory (CMI) consignment warehouse
- Just-in-Time (JIT)

The model shall be provided on a free-of-charge basis by the supplier upon request by the individual Continental location and irrespective of the purchasing volume of the individual location in total or by component.

The conditions for the preferred sourcing models chosen by the respective location are specified in a global and / or an individual logistics agreement with the respective Continental production plant.

In justified exceptional cases and upon acceptance of Continental, specific ship-to-stock model can be implemented.

2.1 Vendor Managed Inventory (VMI) Consignment Warehouse

Continental's VMI consignment concept is intended to reduce assets while optimizing supplier production and transport costs as well as the warehousing costs of both parties and therefore contributes to an optimized and collaborative supply chain.

With VMI, the supplier is authorized to manage the level/range of inventory on his own within the mandatory minimum and maximum ranges of material coverage/inventory as agreed with the respective Continental location.

Continental location provides all necessary information - i.e. production requirements (gross demands) and inventory information - to the supplier. According to this information the supplier commits to keep the level/range of inventory within the agreed limits at all times using commercially reasonable efforts.

100% quality and delivery performance is a common target. In the event of exceeding the maximum level/range of inventory, the goods may be returned at the supplier's expense. In case of not fulfilling the minimum level/range of inventory, Continental reserves the right to charge all costs connected with resulting premium freights to the supplier (more to delivery performance calculation in Chapter 5 Supplier Evaluation).

The goods delivered by the supplier into the VMI consignment warehouse are intended for Continental usage only and remain the supplier's property until they are withdrawn by Continental.

The management and maintenance of the VMI consignment warehouse can be performed by either by Continental or by an authorized logistics service provider (3PL). Further details shall be agreed in the respective VMI contract.

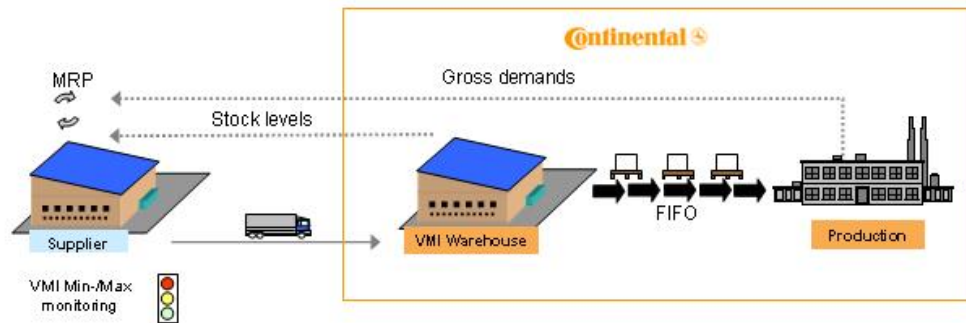


Figure 2.1-1: Basic principles of VMI Consignment Warehouse

2.2 Customer Managed Inventory (CMI) Consignment Warehouse

In case of CMI sourcing model, the supplier receives transparent messages about the stock level in the consignment warehouse, which contributes to an optimized supply chain.

In implementing a CMI consignment warehouse concept the supplier agrees to supply Continental according to the quantities and target dates of the current delivery schedule (net demands). 100% quality and delivery performance is a common target. Continental will accept late shipments of up to 4 days and early shipments of up to 10 days.

Exceeding those limits, any under- and over-shipments will have a negative impact on the delivery performance rating (more to delivery performance calculation in Chapter 5 Supplier Evaluation).

In case of early shipments Continental reserves the right to send the goods back to the supplier.

The goods delivered by the supplier to the CMI consignment warehouse are intended for Continental usage only and remain the supplier's property until they are withdrawn by Continental.

The management and maintenance of the warehouse can be performed by Continental or an authorized logistics service provider (3PL). Further details shall be agreed in the respective CMI contract.

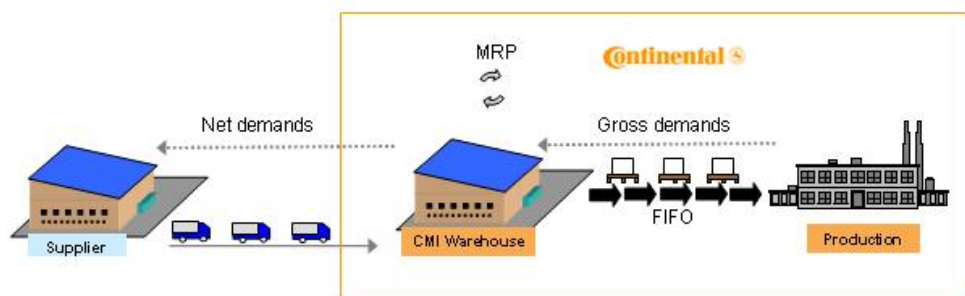


Figure 2.2-1: Basic principles of CMI Consignment Warehouse

2.3 Just-in-time (JIT)

JIT delivery means synchronization of delivery and production, bearing economic feasibility in mind.

A Just-in-time (JIT) concept is characterized by a consumption driven material supply to a defined receiving area (warehouse or Continental production line) in a high frequency. Time is the main element of this concept as the range of material coverage shall not exceed 1 day. 100% quality and delivery performance is mandatory. Continental may, but is not obligated to accept over-shipments. Moreover, any under- and over-shipments will have a negative impact on the delivery performance rating.

Depending on the specific design of this concept both parties can benefit from asset reductions, limited handling costs and optimized costs for warehousing.

The realization of JIT concept is based on close, trusting cooperation between Continental plant and the supplier and requires realization of a zero-error supply chain process and tools management at the supplier.

The JIT process includes the obligation of both parties to inform each other in due time of all events, circumstances and changes that affect the implementation of the concept or could lead to difficulties or disruptions in the process.

3. Scheduling System

3.1 Delivery Schedules

The delivery schedules issued by Continental inform the supplier on current and future requirements on the basis of single and cumulative quantities. The delivery schedule covers a planning horizon of 6 months minimum. The detailed content of the delivery schedules depends on the transmission type (EDI, WEB-EDI or Fax) and Continental location and will be provided during the set-up of the transmission.

The suppliers' delivery and logistics performance is continually measured and analyzed (more in Chapter 5).

In case, when the late delivery from supplier causes premium freights, Continental reserves the right to charge to the supplier all costs connected with this special transport.

Depending on the delivery strategy agreed between Continental and the supplier (e.g. CMI, VMI, JIT), different delivery schedule types can be used as described further below.

In all the cases, it is important to understand the logic of cumulated quantities. They are an essential tool for planning and monitoring deliveries from suppliers to Continental. They allow supplier to look past constant changes to dates and quantities for an accurate picture of which materials have been received Continental plant or are underway. Cumulated quantities are always related to a certain point in the past, either to the beginning of the calendar year or the start of a particular project.

3.1.1 Ship-to-Stock and CMI Delivery Schedules

Ship-to-Stock and CMI delivery schedules reflect the net demands. Delivery dates and quantities cited in the schedule are legally binding and whereas dates are to be understood as arrival dates at the respective Continental plant irrespective of the delivery terms and conditions.

Exceptions may be mutually agreed between the responsible staff of the supplier and Continental prior to delivery. A new delivery schedule always supersedes the preceding one.

The example on Figure 3.1-1 gives a general overview on the content of a delivery schedule. There may be differences in the Continental plant-specific delivery schedules as regards the layout or used fields.

The description below is intended to ensure correct interpretation, effective usage by the Supplier and correct delivery of goods to the Continental plant that issued the concerned schedule.

Conti Temic microelectronic GmbH
Postfach 10 09 54, D-85009 Ingolstadt

Co., Ltd.
North Road, Yuyao

CHINA

1 Delivery Schedule

No. 6100029503 Pos. 00010
Page 1 of 2 Pages Person in charge
Matthias
Phone
0841/
Customer No. Supplier No.
10004

2 Transmittal No. 0074 Date 18.02.2009
3 Supersedes Transmittal No. 0073 Date 17.02.2009
4 ID-no. (VEMIC) 00291355A2 ID-no. (Supplier)
5 Delivery Address: Conti Temic -Ing-
microelectronic GmbH
Ringlestr. 17
D-85067 INGOLSTADT

6a Latest goods received: Quantity: 2,000,000 Release for Production by: 19.05.2009
Delivery note no.: 09CZ-BZ003 Material quantity release by: 17.08.2009
Date: 21.01.2009 Measurement unit: PCE
Goods received cumul. no.: 39,800,000

7 Description:
Additional text:

| Arrival Date | Quantity | Progress Number | Arrival Date | Quantity | Progress Number |
|--------------|----------|-----------------|--------------|----------|-----------------|
| D 18.03.2009 | 2,000 | 41,800 | D 29.01.2009 | 2,000 | 43,800 |
| W 18.2.2009 | 2,000 | 45,800 | W 20.2.2009 | 2,000 | 47,800 |
| M 06.2009 | 4,000 | 51,800 | M 07.2009 | 4,000 | 55,800 |
| M 08.2009 | 4,000 | 55,800 | M 09.2009 | 2,000 | 61,800 |
| M 10.2009 | 4,000 | 65,800 | M 11.2009 | 4,000 | 69,800 |
| M 12.2009 | 2,000 | 71,800 | M 01.2010 | 2,000 | 73,800 |
| M 02.2010 | 4,000 | 77,800 | M 03.2010 | 4,000 | 81,800 |
| M 04.2010 | 2,000 | 83,800 | | | |

8 - Quantity of already received goods

9 - Arrival Date:
D = Day
W = Calendar week (for planning)
M = Month (for planning)

10 - Quantity for the delivery

11 - Cumulated Progress Number:
Quantity from 8 + Quantity from 10

Note: the reading direction is from left to right as shown by dotted arrow

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Figure 3.1-1: Example of a delivery schedule

Supplier shall pay attention especially to the following fields:

- *Number of delivery schedule (Nr. "1" on Figure 3.1-1)*
- *Consecutive number of delivery schedule for the particular part number and date of transmission (Nr. "2")*
- *Previous number of delivery schedule (Nr. "3")*
- *Continental part number (Nr. "4")*
- *Delivery address of Continental plant (Nr. "5")*
- *Production release date (Nr. "6a"), material release date (Nr. "6b")*

For definition of production and material releases refer to Chapter 3.3.3

- *Latest delivery received (Nr. "7")*

Date, quantity and number of the last delivery received at Continental plant.

Continental does not consider goods in transit. It is the full responsibility of supplier to follow this presumption by delivery planning.

- *Delivered so far (Nr. "8")*

Total quantity delivered so far since the beginning of calendar year.

- *Requested arrival dates (Nr. "9")*
- *Quantities undelivered (Nr. "10")*

The quantities to be delivered by the supplier at the requested delivery date. Compliance with these quantities is essential. The supplier is responsible for ensuring that the goods required are shipped from its plant in due time irrespective on the agreed delivery terms and conditions.

- *Total quantity delivered - Cumulated quantities (Nr. "11")*

Cumulative view of scheduled quantities. Starting point for accumulation is the field "Delivered so far" on the delivery schedule.

In addition supplier shall pay attention to the following field:

- *Delivery backlog*

Order, which has not been delivered yet (delivery shortfall up to the date indicated). The supplier must immediately provide Continental with a recovery plan including quantities and delivery dates in order to reduce the backlog as soon as possible.

3.1.2 VMI Schedules

VMI delivery schedules reflect the gross demands. Therefore the delivery dates and quantities cited in the schedule are not binding and serve for planning and information purposes only. In addition, the supplier receives regular inventory reports for each part number stored. Based on this information, it is the obligation of the supplier to plan its deliveries in compliance with the agreed upper and lower inventory limits (more in Chapter 2.1). Continental does not transmit these levels per EDI.

3.1.3 JIT Schedules

In addition to delivery schedules which provide weekly delivery quantities, JIT schedules are used to provide daily shipment information, if required or applicable. The horizon on JIT is shorter - in general 2 to 3 weeks. For this horizon the JIT schedules overwrites the delivery schedule.

As for JIT schedules, all conditions of delivery schedules as per Chapter 3.1.1 shall be applied accordingly. In addition the following conditions apply:

- JIT schedules are intended to assist the supplier with short-term shipment control whereas production (planning) shall proceed in accordance with the delivery schedules. In the event of any delivery problem the supplier shall notify the responsible employee at the Continental plant immediately, i.e. prior to the scheduled delivery date.
- The JIT schedule shall take precedence over the delivery schedule and shall be used as basis for liaison and deciding any liability matters.

3.2 Flexibility and Reaction Time

All our customers expect a high level of flexibility from us. For this reason, the supplier shall ensure that he is able to react with the same flexibility in the event of changes in demand. If no other agreement exists, a flexibility of +/- 20 % of the cumulated quantity within the lead-time is expected from the supplier.

Appropriate solutions in the event of fluctuations going beyond this shall be developed in cooperation between the supplier and the Continental plant logistics concerned.

Suppliers must develop, establish, and implement emergency plans to ensure that supplies to Continental are not disrupted.

All suppliers are required to designate contact persons to the Continental plants who can be reached at any time in case of emergency. Any changes in contact persons must be communicated to Continental in advance by the supplier.

The automotive industry uses the "management by exception process" which means that suppliers do not provide delivery schedule acknowledgement to the customer, except if the supplier is not able to meet some delivery targets mentioned in the delivery schedule. In such cases supplier must clearly point out the exact deviations to his Continental counterpart per email and/or per phone. In any case, supplier must provide their greatest efforts to propose the best alternative possibility to Continental.

For Continental, it means that delivery schedules are deemed to be accepted and approved by the supplier unless a written objection is received by Continental within 2 (two) working days after the receipt of the particular delivery schedule by the supplier. In addition a detailed recovery or action plan has to be provided to Continental by the supplier within 3 (three) working days after the receipt of the particular delivery schedule depending on urgency and supplier's verification work.

3.3 Planning Time Fences

Flexibility and reduced reaction time in the supply chain is extremely important and is expected from each supplier. On the other hand, Continental has to guarantee to the supplier a reimbursement in case of unusual demand drops. It is important that each supplier fully understands the definitions of different time fences connected with material planning.

3.3.1 Frozen Horizon

In order to align the material flow to automotive requirements Continental allows a frozen horizon (also known as frozen window or fixed horizon) of maximum 2 (two) weeks for Ship-to-Stock and CMI delivery schedules. Frozen horizon shall mean that the quantity and delivery dates are fixed in the respective delivery schedule for the agreed upon time period of the frozen horizon.

Short frozen horizon brings transparency into planning process and enables supplier to react quickly and with maximum flexibility to short term demand changes.

In case that change of the delivery schedules within the frozen horizon is necessary, Continental logistics will contact the Supplier to find a mutual agreement.

3.3.2 Lead Time

Lead time describes the period that a supplier needs from receiving orders until the delivery to the customer. As Continental uses delivery schedules lead time is taken into consideration only in case of first-time orders (during ramp up) or in case of sudden demand increases.

Lead time represents the aggregated period of

- (i.) supplier's procurement period of raw materials and/or components to be used solely for a product ("raw materials"), if any;
- (ii.) supplier's manufacturing period of the product and
- (iii.) transportation period from supplier's manufacturing facility to the agreed place of delivery

In cases on cancellations production and material releases are decisive.

3.3.3 Production and Material Releases

Continental commits to take over quantities for which production and material releases are agreed. These releases shall be negotiated for every specific material group between the supplier and the respective Continental location or shall be shown in the corresponding individual delivery schedule.

Production releases are legally binding purchase orders of finished goods. Nevertheless, regarding delivery dates the last delivery schedule is decisive. The production release covers the physical cycle time of production at the supplier.

Material release expresses the obligation of Continental to absorb material costs in case of sudden cancellations. The material release covers additionally the lead time of specific material at the supplier.

If the agreed release periods are not sufficient to maintain the ability to deliver, the supplier may, in individual cases, request that Continental contact persons from logistics department grant the supplier an extension for production and/or material releases or request additional forecast data.

Quantities beyond production and material releases are absolutely non-binding planning figures that the supplier uses to arrange its production capacity. Production release does not entail delivery release.

4. Exchange of Information and Data

The logistic chain from the supplier to the customer can only function efficiently with trouble-free communications which are automated to the greatest extent possible. Continental interchanges data with suppliers via electronic systems to make business processes more efficient.

4.1 Electronic Data Interchange

In general Continental requires communication via EDI or WebEDI. These requirements are in line with a long-term strategy to harmonize currently existing EDI connections and standards with all suppliers.

Migration to one global EDI standard (GLOBAL DELFOR) will smooth the business processes between Continental and suppliers and it will allow more flexibility in the fast changing and competitive automotive environment. The fast information interchange will be ensured and easy integration of suppliers in different delivery strategies will be allowed.

4.1.1 EDI connection

If format EDIFACT as EDI standard is not possible to implement and if it is allowed by Continental, alternative VDA, ANSI X12 or ANFAVEA message formats can be used instead.

Continental uses a central EDI system for the administration of all incoming and outgoing EDI messages. It is the company's aim to connect suppliers directly to this EDI system via protocol (e.g. OFTP or in the future OFTPV2/AS2). If this solution is not possible, suppliers can be connected via private network (e.g. GXS).

The scheduling of each EDI connection shall be agreed with the Central EDI Department of Continental.

4.1.2 Web-EDI connection

SupplyOn Web-EDI connection (www.supplyon.com) can be used instead as an alternative if EDI is not possible.

The SupplyOn internet marketplace was developed specifically for the automotive supply industry. It complies with the existing standards for the interface design and provides the supplier with direct access to the data transmitted by Continental.

Registration at SupplyOn is a precondition for usage of any service of the broad SupplyOn solution portfolio (including Web-EDI).

The SupplyOn WEB-EDI solution provides all required message types and these can be printed directly or downloaded via CSV. However, every single registration for WEB-EDI connection with Continental locations has to be done individually with each location.

4.1.3 Fax connection

In justified exceptional cases and upon discretion of Continental, communication may also take place via Fax. In this case the supplier has to accept a reduction of scoring in the supplier evaluation.

4.2 Message Types

For electronic data interchange Continental uses usual range of both incoming and outgoing messages according to the following regional EDI standards:

- EDIFACT worldwide
- VDA mechanic suppliers in Germany
- ANSI X12 North American Suppliers
- ANFAVEA (RND) Brazilian standard

Standards are used in different in different business processes (VMI, CMI, JIT, Ship-to-Stock).

Scheme below illustrates possible transmission between different departments on Continental and supplier side.

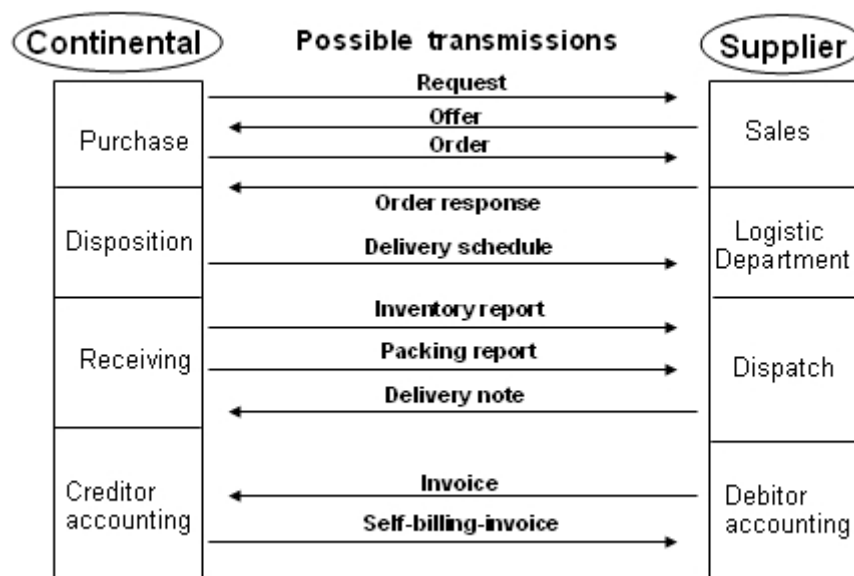


Figure 4.2-1: Possible EDI transmissions between different departments

Following chapters provide supplier with a general overview of the most common EDI message types that guarantee both sides maximum information about the material flow.

4.2.1 Outgoing Messages

According to the agreed delivery strategy, Continental sends the following message types to the suppliers:

- Delivery Schedules (for different types please refer to Chapter 3.1)
- Inventory Report Data

The purpose is to provide the supplier with information about stock level development in consignment warehouses.

The following posting types can be viewed:

 - Goods receipt message (goods received at consignment warehouse)
 - Goods issue message (transfer of ownership to Continental)
 - Corrections
 - Inventory level associated with the movements
- Self-billing Invoices

The purpose of this message is to automate of the invoicing process. Self-billing invoices shall be handled in accordance with the applicable law at the location of the Continental plant.

EDI transmissions of other messages shall be reviewed individually.

4.2.2 Incoming Messages

For the communication from suppliers to Continental the following message can be requested:

- Advanced Shipping Notification (ASN)

The goal of ASN is to provide Continental with information about the delivery well in advance from the receipt date and therefore help to optimize the receipt procedure.

The supplier generates required data from his dispatch system and transfers it to Continental via EDI as ASN message.

The key parameters (for ex. supplier number, material number, receiving plant, delivery point) shall be taken from Continental purchase order or delivery schedule in accurate format.

ASN data is automatically imported into Continental application system where it is processed further.

5. Supplier Evaluation

Customer satisfaction is the common goal for all parties in the automotive supply chain. Logistics performance plays a key role in reaching this target.

For measuring of logistics performance, Continental utilizes a transparent and harmonized supplier evaluation system and worldwide standardized criteria.

Logistics performance consists of the following criteria:

- Delivery performance (reliability) (Chapter 5.1)
- Service criteria (Chapter 5.2)
- Additional logistics performance criteria (Chapter 5.3)
 - Self Assessment of Logistics Processes GMMOG/LE
 - Consignment (VMI/CMI) rate

Continuous evaluation of all of these criteria provides a basis for achieving and maintaining of 100 % logistics performance results on supplier's side.

Supplier's logistics performance among other

- forms part of the "Basic Annual Supplier Evaluation" (BASE, Chapter 5.4.2)
- influences sourcing decisions
- helps the supplier to uncover critical areas and continuously improve internal processes

5.1 Delivery Reliability

As a presumption for flawless logistics performance, every supplier is requested to achieve 100% delivery reliability.

- In the case of Ship-to-Stock / CMI, 100% delivery reliability is defined as delivery of the product called for by Continental in the correct quantity, at the correct time and to the correct location.

Delivery dates are to be understood as arrival dates at the respective Continental plant irrespective of the delivery terms and conditions.

In case there are two delivery schedules sent within one week, both of them are considered for calculation of delivery reliability.

- In the case of VMI, the quality of delivery reliability follows compliance with the agreed minimum and maximum inventory limits.

Based on the delivery reliability results, suppliers are classified according to the following ABC Classification criteria:

| | |
|------------------|----------------------|
| A Classification | $X \geq 90\%$ |
| B Classification | $90\% > X \geq 75\%$ |
| C Classification | $X < 75\%$ |

Every single delivery is evaluated and receives ABC % result (X).

Arithmetic average of these single results then represents a % evaluation of supplier's monthly/yearly delivery reliability for each Continental location.

Supplier's monthly/yearly % delivery reliability represents an arithmetic average of all single Ship-to-Stock, CMI, VMI and backlog delivery performance measurements.

The delivery reliability is assessed for supplier evaluation purposes only and does not discharge supplier to comply with its obligations under any individual agreement and this manual.

5.1.1 Calculation of Ship-to-Stock and CMI Delivery Reliability

The demands submitted by Continental in the delivery schedule are binding and must be reviewed by the supplier with respect to quantities and delivery dates immediately after receipt.

Delivery date of every single goods receipt posting is automatically compared with the corresponding requested delivery date, which is a standard in the automotive industry. For more information regarding calculation refer to VDA Recommendation 5001 (www.vda.de). All the graphic examples in this Chapter are just illustrative.

In case of Ship-to-Stock deliveries, only receipts with tolerance ± 1 day from the requested delivery date get 100 % evaluation. Early or late deliveries receive a proportional penalty deduction.

For an illustrative example refer to

Figure 5.1-1:

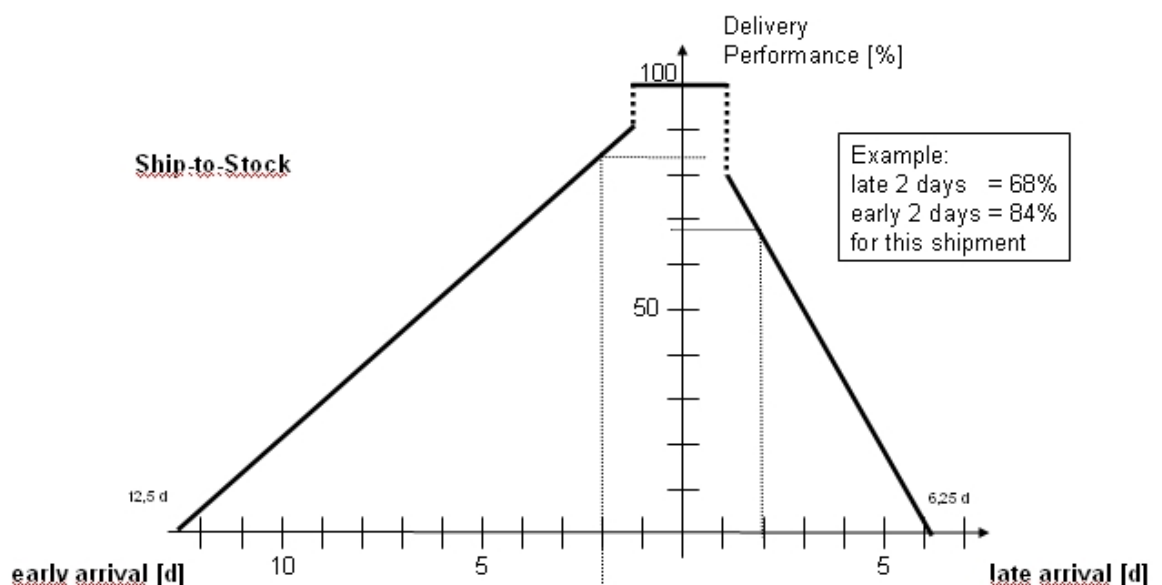


Figure 5.1-1: Examples of ship-to-stock delivery reliability evaluation

In case of CMI deliveries, only receipts with tolerance $-10/+4$ days from the requested delivery date get 100 % evaluation. Early or late deliveries receive a proportional penalty deduction. In comparison with ship-to-stock model, a higher tolerance is allowed since the supplier receives information about stock levels.

Late deliveries tolerance is derived from 5 day buffer stock kept on Continental side. Early deliveries are penalized due to resulting additional warehousing costs on Continental side.

For an illustrative example refer to Figure 5.1-2 :

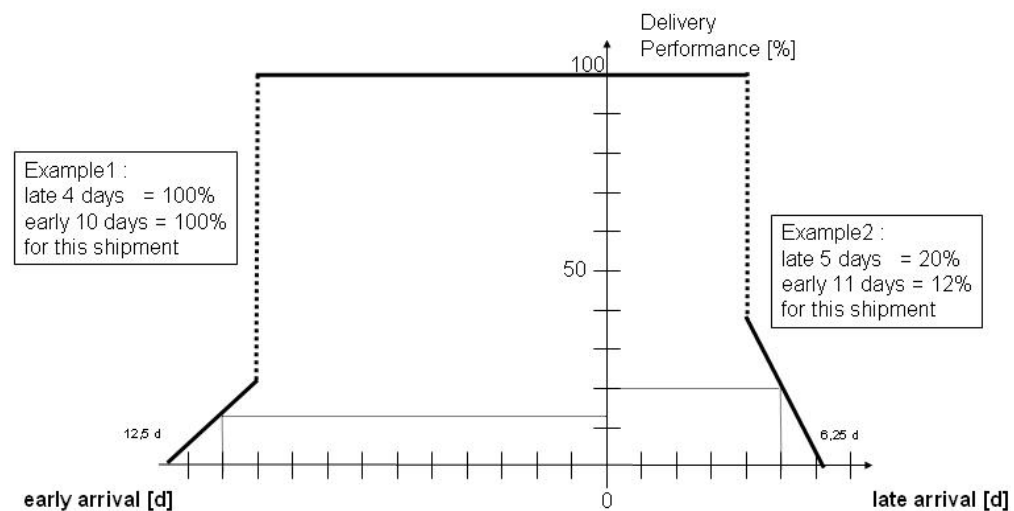


Figure 5.1-2: Examples of CMI delivery reliability evaluation

Arithmetical average of all the single measurements is added to the monthly/yearly delivery performance of the supplier for each Continental location and in total.

5.1.2 Calculation of VMI Delivery Reliability

In the case of VMI, the quality of delivery reliability follows compliance with the agreed minimum and maximum inventory limits.

The min/max levels shall be defined on dynamical (time) basis:

- The minimum inventory level as required inventories in stock in days/weeks based on the current production demand.
- The maximum inventory level as maximum inventories in stock in days/weeks based on the current production demand.

Compliance with these criteria is measured daily for each part number in the VMI. Stock level within defined limits gets 100% evaluation, outside defined limits 0% evaluation.

For an illustrative example refer to Figure 5.1-3:

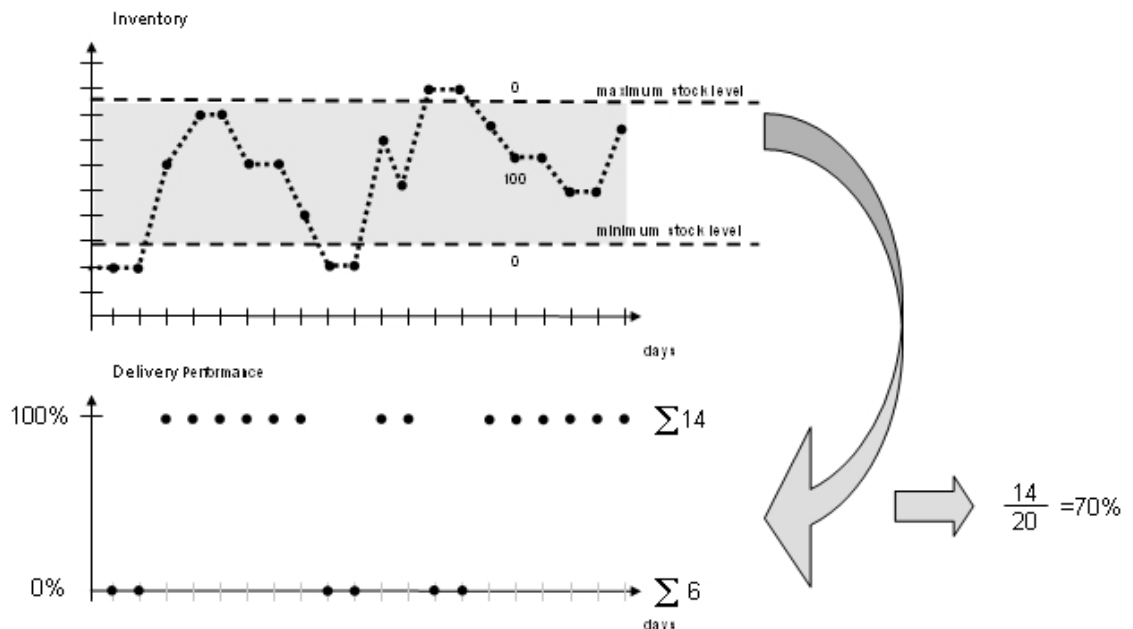


Figure 5.1-3: Examples of VMI delivery reliability evaluation

Arithmetical average of all the single measurements is added to the monthly/yearly delivery performance of the supplier for each Continental location and in total.

5.1.3 Calculation of Backlog Delivery Reliability

Backlog line item is generated when a quantity is expected today but has not arrived yet. At the point of time when the shipment arrives the delivery gets evaluated and the backlog line item is deleted.

Arithmetical average of all the single backlog measurements is added to the monthly/yearly delivery performance of the supplier for each Continental location and in total.

5.2 Service Criteria

In addition to the delivery reliability, additional service criteria are used for measuring of monthly logistics performance:

- Supplier behaviour in case of poor delivery performance
- Flexibility regarding changes in demand
- Shipping documentation
- Packaging / labelling
- Information and communication behaviour

These service criteria are entered on monthly basis in each location into the supplier's SAP profile and are then visible on SupplyOn. Resulting evaluation reflects supplier's logistics service performance in the preceding calendar month.

It is expected that suppliers will track these results and react proactively to any deviation from the required results.

5.3 Additional Logistics Performance Criteria

- Self Assessment of Logistics Processes GMMOG/LE

Once a year, supplier is requested to fill in GMMOG/LE questionnaire (more in Chapter 11.1).

Depending on the resulting evaluation, supplier receives each month a fixed point evaluation as a part of logistics performance.

If the requested deadline for the GMMOG/LE result delivery is not fulfilled, supplier receives zero points for each month of delay.

- Consignment (VMI/CMI) rate

Supplier is requested to implement consignment (VMI/CMI) with Continental plants (for more refer to Chapter 2).

On monthly basis, value of VMI/CMI deliveries on total value of deliveries for each plant is proportionally reflected in the logistics performance.

5.4 Supplier Evaluation Reporting

Logistics performance results are provided to suppliers via SupplyOn Performance Monitor (PerMo). A contract with SupplyOn and registration for the service are required for access to PerMo (more about SupplyOn in Chapter 4.1.14.1.2).

Supplier logistics performance results are updated on monthly basis.

Once a year, strategic suppliers receive via PerMo the results of annual supplier evaluation.

5.4.1 Monthly Reporting

Each month, supplier can find in PerMo its total logistics performance for each location and split according to the following criteria:

- Delivery performance
- Service criteria
- Self Assessment of Logistics Processes GMMOG/LE
- Consignment (VMI/CMI) rate

For further questions regarding the detailed analysis supplier must contact the particular location. The location can provide an automatic download for the past time periods.

However analysis for part number, category, period or other shall be done by supplier.

5.4.2 Yearly Reporting

Each strategic supplier is on yearly basis evaluated for its global performance via BASE (Basic Annual Supplier Evaluation).

BASE results for each of the defined elements (company, purchasing, quality, logistics and technology) are published on PerMo.

As for logistics, the supplier is evaluated for the previous calendar year with one % figure (where 100% is the maximum).

The following criteria are considered:

- Delivery performance
- Supplier behaviour in case of poor delivery performance
- Flexibility regarding changes in demand
- Information and communication behaviour
- Shipping documentation
- Labelling and packaging
- Consignment (VMI/CMI) rate
- Self Assessment of Logistics Processes GMMOG/LE

BASE results serve to Continental for determination of its strategic supply base.

6. Logistics costs in quote process

For every new request for a new part number the supplier is obliged to provide a logistics costs break down (Appendix A08: Template – Logistics Costs Break Down) for each possible delivery form to the responsible purchasing contact at Continental. This form contains the assumptions for the quoted logistics service level according to the selected delivery term/INCOTERM and potential further logistics services. A complete example “how to fill out the template” is included in Appendix A08.

The filled-out logistics costs break down is part of our total landed costs approach. The total landed costs consisting of

the material costs of a part and
all logistics costs alongside the complete supply chain (packaging, transportation, handling, customs, warehousing, JIT/JIS concepts, etc)
form the basis for the decision about the cost optimized inbound supply processes and the supplier selection.

| |
|--|
| Material costs |
| + Logistic costs (packaging, transportation, customs, etc) |
| <hr/> |
| = Landed Costs (of a part) |

7. Delivery Terms at Continental

The supplier and Continental agree on delivery terms according to the specific requirements of the supply chain.

The delivery terms will be defined between purchasing and logistics department of the respective Continental location and the supplier. According to the agreed delivery term the nomination of the forwarder will be decided.

The delivery terms are set up preferably according to the **Continental Automotive (CA)** trade terms “**CA-DDU**” and “**CA-DDP**” or if those are not suitable according to the INCOTERMS 2000 (for details see “7.3 Preferred delivery terms”).

7.1 INCOTERMS 2000

The INCOTERMS 2000 indicate the costs, risks and obligations of each contracting party with regard to the delivery of the goods.

The INCOTERMS do (main functions):

Identify the transfer point for possession of the goods; In general, the delivery process can be subdivided into 1st the distance from dispatch point to transfer point (seller's responsibility) and 2nd the distance from transfer point to destination point (buyer's responsibility).

- Determine the split of costs between the seller and buyer
- Determine the transfer of risks from seller to buyer

The INCOTERMS do not (separate definition in contract needed):

- Determine the terms of payment & place of jurisdiction
- Define the transfer of ownership (unlike change of possession)
- Regulate the consequences of a violation of the INCOTERMS- obligations

The INCOTERMS are subdivided into four different categories:

- The first category is the **minimum clause E** (EXW - Ex Works).
The seller only makes the goods available to the buyer at the seller's own premises (e.g. plant/warehouse) at the agreed time.

- Under the **F-terms**, the supplier is responsible to hand the goods over to the forwarder nominated by the buyer (FCA, FAS and FOB) at the agreed place. The seller is responsible for all documentation needed for exportation.
 - FCA – Free Carrier; the seller delivers the goods to the carrier named by the buyer at the agreed place. If delivery is agreed at the seller's premises, the seller is responsible for loading.
- The **C- terms**, consist of the terms CFR, CIF, CPT, CIP. The supplier is obliged to organize and pay for the carriage of the goods, but without bearing the risk of loss or damage to the goods in transit. The seller is responsible to clear the goods for export. In the case of CIF and CIP the seller is also responsible for the transport insurance (on behalf and for the benefit of the buyer).
- Under the **D- terms** (DAF, DES, DEQ, DDU and DDP) the supplier bears all risks and costs associated with the carriage of the goods up to the agreed destination.
 - DDU – Delivered Duty Unpaid; The seller delivers the goods to the buyer at the named place of destination. The seller is neither responsible for the import clearance and payment of duties nor the unloading of the goods from any transport vehicle.
 - DDP – Delivered Duty Paid; the seller has to bear all costs and risks involved in bringing the goods to the agreed place of destination. The seller is also responsible for customs clearance and payment of duties and taxes in the country of importation. For that it is required in most countries that the seller is registered in the importing country as importer of record. The seller is not responsible to unload the goods.

7.2 Trade Terms CA-DDU & CA-DDP

7.2.1 Trade Term CA-DDU

“Continental Automotive – DDU” (CA-DDU) is derived from the INCOTERM DDU. CA-DDU is defined in the contract between the supplier and Continental as follows:

“**DDU, Continental location**” with the additional clause:

“Payment of freight charges and organization of the logistics chain plus transportation insurance and handling of insurance claims – according to Continental standards – by Continental on behalf of the supplier.”

Responsibilities of the Supplier:

According to **CA-DDU** the supplier transfers the following responsibilities onto Continental:

- the organization of the logistics supply chain,
- the payment of freight charges and
- the transport insurance.

The supplier remains in possession of the goods until they have arrived at the Continental location as the shift of responsibility from the supplier to Continental takes place according to INCOTERM DDU.

Responsibilities of Continental:

1. Organization of the logistics chain.

Continental will nominate a suitable forwarder in order to arrange the logistics supply chain from the supplier's location to the Continental location.

Continental is responsible for ensuring the arrival times. The arrival date according to the agreed transportation lead time mentioned in our material releases is the latest date, when the payment terms become valid.

2. Payment of freight charges.

Freight charges are paid directly by Continental to the carrier.

3. Payment of transport insurance.

The supplier is covered against damages or losses by Continental corporate transport insurance policies. In addition, all insurance claims will be processed by Continental directly.

4. Import formalities.

Continental is responsible for carrying out the customs formalities and the payment of any duty, taxes and other charges for import in the country of destination.











| Split of Responsibilities - Supplier & Continental | | | | | | | | | | | |
|--|----------------------|---|---|---|---|---|--|---|---|---|---|
| Supplier Name | INCOTERM / Trademark | seller (supplier) | loading | Export customs | Transport | port of departure on board | transport | port of destination from board | Transport | Import customs | buyer (Continental) |
| | |  |  |  |  |  |  |  |  |  |  |
| INCOTERMS | | | | | | | | | | | |
| Supplier location | FCA | Costs | | | | | | | | | Costs |
| | | Risk | | | | | | | | | Risk |
| Supplier location | DDU | Costs | | | | | | | | | Costs |
| | | Risk | | | | | | | | | Risk |
| Supplier location | | inventory | | | | | | | | | inventory |
| | | | | | | | | | | | |
| Continental Automotive - Trade Terms | | | | | | | | | | | |
| Supplier location | "CA - DDU" | Costs | | | | | | | | | Costs |
| | | Risk | | | | | | | | | Risk |
| Supplier location | | inventory | | | | | | | | | inventory |
| | | | | | | | | | | | |

Figure 7.2-1: Split of responsibilities according CA-DDU

A concrete *example* shall show the split of responsibilities between the supplier and Continental:

The nominated forwarder picks the goods up at the supplier's location. Upon arrival at the sea-/airport the goods are loaded on the vessel/plane. At the port of destination the goods are unloaded and then transported to the Continental location.

Applying the trade term CA-DDU on the described scenario above: Continental is responsible for the complete transport organisation and is directly charged with the costs for transportation by it's forwarder. The supplier remains owner of the goods until the arrival of the goods at the Continental location.

Remark: Payment terms are agreed independently from the CA -trade terms (as well as agreed independently from the INCOTERMS)

7.2.2 Trade Term CA-DDP

“Continental Automotive - **DDP**” (**CA-DDP**) is derived from the INCOTERM DDP. CA-DDP is defined in the contract between the supplier and Continental as follows:

„DDP, Continental - location“ with the additional clause:

„Payment of freight charges and organization of the logistics chain plus transportation insurance and handling of insurance claims - according to Continental standards - by Continental on behalf of the supplier.“

Responsibilities of the supplier:

According to **CA-DDP** the supplier transfers the following responsibilities onto Continental:

- The organization of the logistics supply chain,
- The payment of freight charges and
- The transport insurance.

The supplier remains in possession of the goods until they have arrived at the Continental location.

As the shift of responsibility from the supplier to Continental takes place according to INCOTERM DDP, the supplier is furthermore responsible for carrying out the customs formalities and the payment of any duty, taxes and other charges for import in the country of importation.

Remarks:

- *It is required in most countries that the seller (supplier) is registered in the importing country as importer of record. The Importer of record is the responsible entity for (1) ensuring the imported goods comply with local laws and regulations, (2) achieving a completed duty entry and associated documents and (3) paying the assessed import duties and other taxes on those goods.*

- Furthermore, the supplier is obliged to register for local tax (VAT) in the country of the receiving Continental location – if required in the country of destination. Attention: Registration for local tax (VAT) is required in most European countries for third country suppliers (=Non-European-Suppliers)!

Continental can advise the supplier on selecting a suitable and economic solution for external fiscal representation, if requested by the supplier.

Responsibilities of Continental:

1. Organization of the logistics chain

Continental will nominate a suitable forwarder in order to arrange the logistics supply chain from the supplier's location to the Continental location. Continental is responsible for ensuring the arrival times. The arrival date according to the agreed transportation lead time mentioned in our material releases is the latest date, when the payment terms become valid.

Remark: Customs clearance needs to be organized by the forwarder on behalf of the supplier.

2. Payment of freight charges

Freight charges are paid directly by Continental to the carrier.

3. Payment of transport insurance.

The supplier is covered against damages or losses by Continental corporate transport insurance policies. In addition, all insurance claims will be processed by Continental directly.

Like the INCOTERM DDP, the trade term CA-DDP is the basis for a consignment / VMI agreement between the supplier and Continental.











| Split of Responsibilities - Supplier & Continental | | | | | | | | | | | | |
|--|----------------------|---|---|---|---|---|---|---|---|---|---|-------------|
| Supplier Name | INCOTERM / Tradeterm | seller (supplier) | loading | Export customs | Transport | port of departure on board | transport | port of destination from board | Transport | Import customs | buyer (Continental) | Continental |
| | |  |  |  |  |  |  |  |  |  |  | |
| INCOTERM | | | | | | | | | | | | |
| Supplier location | DDP | | | | | | | | | | Continental | |
| | | Costs | | | | | | | | | Costs | |
| | | Risk | | | | | | | | | Risk | |
| | | inventory | | | | | | | | | inventory | |
| Continental Automotive - Trade Term | | | | | | | | | | | | |
| Supplier location | "CA - DDP" | | | | | | | | | | Continental | |
| | | Costs | | | | | | | | | Costs | |
| | | Risk | risk of loss covered by Continental insurance | | | | | | | | Risk | |
| | | inventory | | | | | | | | | inventory | |

Figure 7.2-2: Split of responsibilities according CA-DDP

A concrete example shall show the split of responsibilities between the supplier and Continental:

The nominated forwarder picks the goods up at the supplier's location. Upon arrival at the sea-/airport the goods are loaded on the vessel/plane. At the port of destination the goods are unloaded and then transported to the Continental location.

The supplier and the forwarder on behalf of the supplier respectively is responsible for carrying out the customs formalities and the payment of any duty, taxes and other charges for import in the country of importation.

Applying the trade term CA-DDP on the described scenario above: Continental is responsible for the complete transport organisation and is directly charged with the costs for transportation by its forwarder. The supplier remains owner of the goods until the arrival of the goods at the Continental location and is responsible for all customs formalities and paying the corresponding duties and charges.

Remark: Payment terms are agreed independently from the CA -trade terms (as well as agreed independently from the INCOTERMS)

7.3 Preferred delivery terms

For domestic business

- “FCA, place of the supplier” is the usual delivery term selected by Continental.

For international cross border business

- “CA-DDU, place of the Continental-location” or
- “CA-DDP, place of the Continental-location” are the preferred delivery terms. CA-DDP is a fitting trade term if Consignment or VMI (see Chapter 2) is agreed with the supplier.

7.4 Nomination of the logistics service provider

In the case of “FCA, location of the supplier” or “CA-DDU” / “CA-DDP” Continental will nominate the Logistics Service Provider. The supplier will be informed by Continental accordingly.

The supplier has to initiate all shipments via the logistics service provider nominated by Continental.

8. Transportation and Customs Processing

8.1 Shipment Instructions for Suppliers and Forwarders

8.1.1 General

The instructions given in this section are part of our standard conditions and apply, unless stated otherwise, irrespective of the delivery conditions agreed with the supplier. They govern cooperation between the supplier, the forwarder and Continental if not otherwise specified by Continental.

The mode of transportation, route and forwarder will be determined by Continental in accordance with the agreed delivery terms. All deliveries have to be handed over to the agreed forwarder. Any change has to get prior agreement from Continental plant logistics.

Any costs incurred by reason of failure to comply with these instructions are for the account of the supplier.

The following requirements are required in case of deliveries agreed under Incoterms FCA, place of supplier, CA-DDU and CA-DDP.

8.1.2 Shipment Handling (Supplier)

8.1.2.1 Notification / Handing over / Delivery

The supplier must notify the forwarder that goods are ready for dispatch by fax or EDI in accordance with the following requirements:

- Notification not later than 2 p.m. on day A (upon agreement, earlier deadlines can be agreed between the forwarder and the Continental location)
- Handing over to the forwarder on day B between 8 a.m. and 5 p.m. or at fixed time agreed between supplier and forwarder
- Delivery to Continental on day C (deviations have to be agreed between the forwarder and the Continental location)

A, B and C are consecutive working days. For this purpose, Sundays and public holidays are not counted as working days.

8.1.2.2 Agreement of Delivery / Arrival Day

The delivery/arrival day in the Continental-location is the day of the week laid down in the order or delivery schedule or agreed by the supplier with the Continental material procurement department. The supplier and forwarder shall cooperate to ensure that goods are delivered on the correct delivery day.

8.1.3 Obligations of Supplier

8.1.3.1 Notification of Readiness for Shipment

The supplier shall notify the forwarder and if required in special cases also Continental by fax or EDI on day A that goods are ready for shipment so that the goods can be collected by the forwarder on the following day (day B).

8.1.3.2 Data to be reported

The supplier shall inform the forwarder of the following data on day A:

- Gross weight (resulting from the quantity stated in the order or delivery schedule agreed with Continental staff)
- Quantity and precise designation of packaging units (floor spaces), subdivided by recipient plants or unloading points
- Stackability / non-stackability of packaging units
- Required declarations for hazardous goods

8.1.3.3 Notification of Increased / Reduced Quantities

The supplier shall avoid retroactive changes of the quantities made available for shipment as such changes affect the forwarder's planning and normally result in additional costs.

For this reason:

- The supplier shall make the quantity reported as ready for shipment available on day B.
- The forwarder shall charge to the supplier any additional cost incurred by reason of increases or decreases in quantities made available.

8.1.3.4 Notification of Reduced Quantities/Compensation Deliveries

In the case that quantities notified are lower than quantities required for arrival on day C in the Continental-location, the supplier has to arrange a special delivery on day B to ensure that the quantities stated in the delivery schedule or agreed with Continental staff are delivered on day C.

In addition, supplier has to provide Continental with a telephone number at which the driver of the premium freight delivery can be reached at all times.

The supplier shall notify Continental of any quantity deviation and required premium freight transportation. The forwarder shall ensure in such cases that the premium transportation ensures delivery on day C.

The forwarder or Continental will charge all additional cost of the premium freight to the supplier.

8.1.3.5 Delayed Notification

In the event of delayed notification of readiness for shipment (after 2 p.m. on day A), the supplier has to arrange a premium freight transportation on day B to ensure that the quantity stated in the delivery schedule or agreed with Continental is delivered on day C.

The supplier shall notify Continental staff regarding the delayed notification and the need for premium transportation.

The forwarder has to ensure arrival of the goods on day C.

The forwarder or Continental will charge all additional costs of the premium freight to the supplier.

8.1.4 Making Goods Available for Shipment

The supplier shall make the goods available for shipment on day B together with all the documents required so that the forwarder can collect the goods between 8 a.m. and 5 p.m. or during the normal hours of business of the supplier. Fixed collection times may be agreed between the supplier and the forwarder.

The forwarder will only accept requests of the supplier for fixed collection times if these are compatible with cost-effective shipment and reliable delivery on day C.

The supplier shall ensure that the vehicles of the forwarder will be loaded promptly within the agreed time slot.

8.1.5 Delayed Readiness of the Goods Caused by the Supplier

In the event of delays caused by the supplier on day B, delivery on day C is in danger. In such cases, the supplier has to arrange premium freight transportation on day B to ensure delivery on day C.

The supplier shall notify Continental staff of the delay and the need for premium freight.

The forwarder has to ensure arrival on day C.

The forwarder or Continental will charge all additional costs of the premium freight to the supplier.

8.1.6 Collection by the Forwarder

In the event of delay in the collection of goods on day B caused by forwarder, delivery on day C could be in danger. In such cases, the forwarder shall arrange premium transportation on day B to ensure arrival at Continental on day C.

The forwarder shall notify Continental staff regarding the delay in the collection of goods and the need for premium freight. The forwarder has to ensure arrival on day C. Any additional cost of the premium transportation is for the account of the forwarder.

Documents required from the supplier:

On day B the supplier has to provide to the forwarder all documents, which are listed and named later in this manual.

8.1.7 Delivery by the Forwarder

The forwarder has to ensure that the goods are delivered on day C to the Continental location.

The forwarder shall agree the delivery time and any deviations with Continental staff.

8.1.8 TSA - Air Cargo Security Procedure

Since March 2007 there are new TSA security regulations for air freight leaving US airports.

This regulation is valid for all US airports. TSA shares information and best practices, and also ensure that International Airports comply with US and international security Standards.

For the detailed requirements of packaging labels and other requirements, please see the detailed requirements from the forwarders - Appendix A05

8.1.9 Parcel Shipment

Single packaging units with maximum length of 270 cm, maximum dimension (length plus strap circumference) amount to 330 cm and a weight from 0 - 32 kg till maximum 70kg/piece qualify for shipments via Parcel Service Providers.

Continental AG has global parcel contracts with different Parcel Service Providers which are valid also for its holding-companies, licensees worldwide and their suppliers.

The preferred Parcel Service Provider depends on the desired relation (origin and destination countries of the supplier and the Continental-plant) and the kind of service (Standard - Express; national - international (export / import)).

The following points must settle with the Continental-receiving plant before the shipment via a Parcel Service Provider get into instruction:

- Choice of the Parcel Service Provider which has to be contacted
- Kind of service [slower "Standard"-Service (1-5 days transit time) or rapid "Express"-Service " (24 -96 h)]
- Continental-Account-no for each receiving plant

Each Parcel Service Provider has his own separate Account-no for each plant. This Account-no has to be announced every time for each shipping order!

8.2 Customs, Supplier Declaration, Preferential Movement Certificates

8.2.1 Deliveries to Continental Locations

The following provisions must be complied with when delivering to Continental locations worldwide.

8.2.1.1 Deliveries from Suppliers within the EU

In all cases of deliveries inside the EU, the supplier has to complete the form **"Long Term Supplier's Declaration, according EC regulation 1207/2001"**

issued by Continental and has to give a legal binding declaration of the origin and preferential status of the goods, as required by customs regulations (country of origin and preferential tariff status).

The supplier has to process and return the form requested by Continental within a period of 14 days. Compliance to this requirement is essential to avoid reminders (and costs resulting thereof).

Continental will not accept declarations made on the supplier's own forms or references to origin/preferential tariff endorsements in invoices.

The supplier shall notify Continental promptly in written form on any changes in declarations already submitted (especially regarding changes of country of origin and preferential status). It shall not be necessary for Continental to request such notification specifically.

The supplier will be liable for any cost at Continental caused by delayed or not given declarations or in cases of failures in the declarations.

In cases of doubt, the supplier is responsible to clarify unclear points with the customs authorities or chambers of commerce.

If required, the supplier has to provide a special customs document -which is confirmed by his local customs authority – to proof his supplier declaration.

8.2.1.2 Deliveries from Suppliers in Countries Having Preferential Customs Agreements with the Country of the Continental Location

Deliveries to Continental locations in regions/countries with preferential agreements -- e.g. the numerous agreements with EU, within NAFTA and the different agreements of NAFTA-countries with other regions and countries, within the ASEAN-countries -- need to be shipped together with properly completed and confirmed Preferential Movement Certificates.

(E.g. EUR1-document, Certificates of Origin Form A, NAFTA-declarations, other appropriate certificates of origin, endorsement on invoice in the case of an exporter authorized by the customs authorities, or other applicable documents).

Any duties or other cost at Continental as a result of the failure of the supplier to comply with these requirements will be charged to the supplier.

In the event that the rules of the preferential agreements do not allow compliance with these requirements (e.g. local content requirements), the supplier has to inform Continental staff in written form prior to the conclusion of the contract.

8.3 Documents Required from the Supplier

The supplier has to attach all documents required from Continental to the shipments.

8.3.1 Delivery Notes and Shipping Orders

Delivery notes and shipping orders according to the defined data requirements by the individual Continental location.

Shipping Orders shall be accompanied by the appropriate delivery notes. All delivery notes for the complete shipment must be listed on the shipping order.

Only one delivery note may be used for each article number.

8.3.2 Invoices

To ensure proper customs clearance in the case of importation of goods, the invoices must contain the following information:

- Invoice number
- Invoice date
- Vendor name & address
- Purchaser name & address
- Goods recipient
- Order number and reference numbers
- Conditions of delivery pursuant to agreed delivery term
- Continental parts numbers
- Designation of goods including the customs statistics reference which has to correspond with the information in the preferential agreement
- Item quantity
- Value of goods, individual price and total price
- Currency
- Country of origin
- Gross weight
- Net weight

The invoice to accompany the goods must be identical to the commercial invoice.

For business transactions within the EU-countries the invoice must include VAT ID number of the supplier and of the respective Continental-location.

If a delivery is free of charge, this must be noted on the invoice (value only for customs purposes). The value indicated for customs purposes must also correspond to the actual value of the goods (market price).

8.4 Export Control

According to the general Export Control Method CAM1000101-02:

For compliance with EU, national, and U.S. export control regulations, the supplier is requested to provide us with notice of the appropriate export list number AL number (national/EU law) and Export Control Classification Number (ECCN, U.S. law) for their goods (hardware, software, technology).

If this should not be possible, the supplier must agree to provide Continental, upon request and in writing, with the technical information necessary for the classification of the individual goods in accordance with the control lists. Such information might include, for example, technical parameters, functional descriptions, material composition, parts lists, specifications, diagrams, and advertising brochures.

Based on national and international law, it may also be necessary to obtain information from the supplier regarding the percentage breakdown of the product by country of origin and value. The objective of doing so is to establish whether or not a supplier's product is subject to U.S. law. In such cases, the supplier is asked to provide the following information on its product(s) in writing:

| Product designation | Your part no. | Continental part no. | Dual use no. | ECCN | % U.S. share | Country of origin |
|---------------------|---------------|----------------------|--------------|------|--------------|-------------------|
| | | | | | | |

Where applicable, the supplier shall also provide this information for other countries.

Key for filling in the table:

- Product designation:
Usual commercial designation of the product
- Your part number:
Your company's internal part number
- Continental part number:
Part number of Continental
- Dual use number:
Indicate the number from the EU dual use list (maximum of 15 digits). If there is no obligation to obtain authorization, please enter 'N' in this space.
- ECCN:
Indicate the number of the CCL (Commerce Control List) of the U.S. (maximum of 15 digits). Indicating an ECCN confirms that your product is subject to the U.S. Export Administration Regulations. Should your product not be subject to the U.S. EAR, please enter 'N' in this space.
- % U.S. share:
U.S. share as a percentage of the price ex works. In evaluating whether goods are subject to U.S. jurisdiction, the share of value made up by U.S. preliminary materials must be indicated in relation to the ex works price of the goods. Only if goods consist fully of preliminary materials that do not originate in the U.S. can filling out this space be dispensed with.
- Country of origin:
Country of origin or origin without preference

The supplier must be aware that, business transactions between him and Continental are subject to export control laws, including those of the USA.

Continental's obligation to fulfil any purchase agreement is subject to the provision that the fulfilment is not prevented by any impediments arising out of national and international foreign trade and customs requirements or any embargos or other sanctions, unless Continental was or should have been aware of these obstacles when the contract was concluded.

9. Identification

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

Any shipment of material must be always accompanied by previously approved labels. Previously approved means before any first delivery of new material, any first delivery of a known material after a material change, any first delivery of a known material to a new or to a different plant etc.

In the event of a failure by the supplier to comply with Chapter 9, Continental reserves the right to charge the cost of handling and printing of new labels to the supplier.

9.1 2D-Label according to SN 55228-2

The 2D-Label is still requested to those locations which the 2D-Label is already implemented. The package label with the “PDF417” code must be placed on every single packaging unit.

In such cases the single VDA-KLT-Label (for description see the following Chapter 9.4) is not necessary.

SN 55228-2 is an integral part of this manual (see Appendix A06).

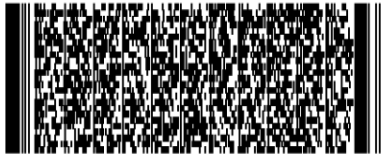
| | | | | |
|---|--|--|-----------------------------|-------------------------|
|  | | | Partno.: A2C53293714 | |
| | | | Quantity: 205 | |
| | | | Index: 01 | Expiry Date 12.04. 2010 |
| | | | Batch-No.: 123456_LOT | |
| | | | Shipping No: 6398711 | |
| | | | Date Code M200804 | MS-Level: N |
| Supplier-ID Package-ID Batch-ID | | | Add. Part Info: | |
| 9065256 S123456789012 0101 | | | Halteplatte | |
| Ordering Code: A2C53293714/01 | | | | |
| Supplier Data: | | | | |

Figure 9.1-1: Sample of 2D-Label

9.2 MAT-Label according to CN 855228-2

The MAT-Label becomes a new common standard at Continental in middle and long term. The implementation occur plant specific and will be coordinated by central function, only.

The requirements to the MAT-Label are specified in the Continental Norm CN 855228-2 (see Appendix A07) as part of this manual.

| | | | | |
|---|-----------|-------------------|------------|----------|
|  | Part.No.: | 00196381A0 | Exp.-Date: | 20100319 |
| | Quantity: | 2500 | Date Code: | 20090319 |
| | Index: | | Moisture: | N |
| | Add.Info: | | Batch-ID: | 2 |
| | 1. Batch: | 010508 11 | | |
| 2. Batch: | 010508 12 | | | |
| <div style="text-align: right;"></div> | | | | |
| Part Name: ICC*TLE4276DV*TO252*S-24 Purchase: 6100034917 Supplier-ID: 901796 Package-ID: SB02611441606 Shipping Note: 123456789012 Ord. Code: ICC*TLE4276DV*TO252*S-24 Man. Loc.: DEU-REGENSBURG Man. Part No.: 1234567890 Supplier-Data: Sample CEP LA CSL Feldmeier Suppl.: Sample & Co. | | | | |
|  | | | | |

Figure 9.2-1: Sample of a MAT-Label

Only upon specific request and agreement, the MAT-Label can be used for the plant concerned.

An agreement from a plant to use the MAT-Label is only related to this individual plant and is not automatically a release for other plants.

9.3 Plant specific labels without 2D-Code

Plant specific labels without 2D-Codes but based on country specific norms like:

| | |
|--|---|
| (P) CUSTOMER PART NUMBER: A0123456A0100 | |
|  | |
| (V) VENDOR CODE: 000123 | (Q) QUANTITY: 1000 |
|  |  |
| (1T) LOT CODE: 123456789012345 | |
|  | |
| (9D) DATE CODE: AB0402 | MSL - 3 168 HRS |
|  | Made in US |
| | XYZ COMPANY |

Figure 9.3-1: NAFTA-Label according to 87M42900T23

- AIAG-Labels (NAFTA),
- GALIA-Labels (France),
- ODETTE-Labels (EUROPE)

or Labels within JAMA/JAPIA (Asia) are possible and must be supported by the supplier as well.

For additional information and instructions please consult the specific Continental location.

9.4 VDA Labels

The German VDA-Label 4902 is a next standard label at Continental.







| | | | |
|---|--|--|--|
| (1) Warenempfänger Continental Teves AG & Co. DE-60488 Frankfurt am Main | | (2) Abladestelle - Lagerort - Verwendungsschlüssel W0001 S | |
| (3) Lieferschein-Nr. (N) 23267620  | | (4) Lieferantenanschrift (Kurzname, Werk, PLZ, Ort) Test-Lieferant SupplyOn DE-60488 Frankfurt | |
| | | (5) Gewicht netto 157 | (6) Gewicht brutto 250 |
| | | (7) Anzahl Packstücke 48 | |
| (8) Sach-Nr. Kunde (P) 10-0507-0106-1-00  | | | |
| (9) Füllmenge (Q) 4800  | | (10) Bezeichnung Lieferung, Leistung Ventilschraube | |
| | | (11.1) Sach-Nr. Lieferant PIA-SA | |
| (12) Lieferanten-Nr. (V) 47111  | | (11.2) PM-Ident-Nr. 9810000000000 | |
| | | (13) Datum D080311 | (14) Änderungsstand Konstruktion 21-00000000 |
| (15) Packstück-Nr. (M) 123456789  | | (16) Chargen-Nr. (H) 2008031101  | |
| (17) Test-Lieferant SupplyOn | | Warenanhang VDA 4902, Version 4 | |

Figure 9.4-1: VDA Master-Label 210 x 148 mm (LxW) - Picture Dimension reduced

| | | | | |
|---|--|--|--|--|
| (1) Warenempfänger-Kurzadresse Continental Teves AG & Co. oHG DE-60488 Frankfurt am Main | | (2) Abladestelle - Lagerort - Verwendungsschlüssel W0001 S | | (3) Lieferschein-Nr. (N) 23267620  |
| (8) Sach-Nr. Kunde (P) 10-0507-0106-1-00  | | | | |
| (9) Füllmenge (Q) 100  | | (10) Bezeichnung Lieferung, Leistung Ventilschraube | | |
| | | (11.1) Sach-Nr. Lieferant (30S) PIA-SA | | |
| (12) Lieferanten-Nr. (V) 47111  | | (11.2) PM-Ident-Nr. 9800000000000 | | |
| | | (13) Datum D080311 | (14) Änderungsstand Konstruktion 21-00000000 | |
| (15) Packstück-Nr. (S) 987654321  | | (16) Chargen-Nr. (H) 2008031101  | | |

Figure 9.4-2: VDA Single-Label 210 x 74 mm (LxW) - Picture Dimension reduced

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

It is available for free at www.vda.de, search for “4902” in German, because it is published in German, only. You will find the basic recommendation and the supplementation to it.

If a plant demands this type of label, then following instructions are valid:

Each packaging unit, box or container delivered to Continental shall be marked by a VDA Singlelabel. Any old labels 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.

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.

9.4.1 Mixed Loads particular rules for placing labels

Only one article number is allowed in one smallest packaging unit (box, cardboard). Mixed article numbers in one manual handled unit is not allowed.

If it is not possible to make up a complete loading unit of one article number (because an insufficient number of packaging units has been ordered), containers with different article numbers may be made up into a mixed loading unit.

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

9.4.2 Positioning of Label

All labels shall be clearly visible from the outside. Tags shall not be glued to 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 taken into account).

To avoid misunderstandings and to prevent problems with material and information flow at Continental plants, any old labels and internal markings of the supplier shall be removed before any container is dispatched.

9.4.3 Particular rules for placing labels at GLT

If a label holder is available, please use it. If not, place label at the shorter side at the left, upper corner.

9.5 Accompanying Documents

All the delivery notes of a delivery shall be handed over to the forwarder (normally the forwarder designated by Continental) together with the shipping order and any other accompanying documents.

Only one delivery note may be used for each article number.

Any quality certificates required shall be stapled to the delivery note.

In the case of individual packages delivered by the postal or parcel services, accompanying documents may be attached to the outside of the package.

9.5.1 Delivery Note and Shipping Order

Delivery notes and shipping orders (DIN 5018/ VDA 4922) shall include the information required by the applicable DIN standards (DIN 4991) and/or VDA publications.

Each shipping order shall be accompanied by a set of delivery notes. All the delivery notes for the shipment shall be listed on the shipping order.

The type, size and quantity of any returnable packaging shall be indicated on delivery notes and shipping orders.

The following information shall be stated on the delivery note:

- Continental scheduling agreement no. and order no.
- Continental article no. (13-digit)
- Continental designation
- Total quantity for each article no.
- Quantity and designation of returnable packaging
- Order no
- General data: mode of shipment, shipment date, gross and net weight of delivery for each article no., delivery note no., supplier no

9.5.2 Additional Documents

In special cases any details shall be agreed with the Continental department concerned.

10. Packaging

10.1 Packaging by the supplier

The supplier is responsible for the quality and delivery of the products and therefore also for compliance with these packaging requirements. In order to ensure safe handling (in accordance with accident prevention and other regulations) and smooth operations, it is essential for all goods to be delivered in accordance with the requirements stated in this section.

This section defines packaging procedures and functions.

It is the responsibility of the supplier to provide individual and/or collective packaging for the goods. The packaging provided by the supplier shall ensure that the goods reach their destination in satisfactory condition.

Among other things, the packaging shall protect the goods from damage (loads in transit) and from deterioration caused by environmental effects. The packaging shall also protect personnel against hazards resulting from the goods themselves (e.g. regulations concerning the handling of hazardous goods).

The supplier shall submit a packaging proposal to Continental (Appendix A01 "Packaging Specification Data Sheet") and shall agree with Continental upon packaging. This will result in minimal cost in handling (e.g. removal of products for assembly) and disposal.

10.1.1 General requirements for packaging development and definition

All packaging shall be designed to perform the functions required. The properties required for the various functions of packaging are listed below:

Protective functions

- temperature-resistant, tight
- corrosion-resistant, dustproof
- chemically neutral
- sturdy, shockproof
- shock-absorbing, pressure-resistant
- tear-proof

Storage, handling and shipment functions in addition to the protective functions:

- damage free
- stackable, slip-resistant, standardized
- standardized for easy handling
- designed for automated handling
- for driving under
- designed to form units and to save space
- minimum dynamic stacking factor = 2 (1+1)
- maximum gross weight of 1000 kg per pallet
- maximum gross weight of 15 kg per manual handled loading unit (plant- specific definition is possible)
- maximum outer dimensions (incl. pallet and lid):

The maximum outer unit load dimensions should be defined according to the type of packaging and transportation mode:

- Type of packaging:
 - Returnable, review catalogue of returnable listed per location
 - Expendable, according to transportation mode
- Transportation mode:
 - Air-freight
 - Sea-freight
 - Truck

Details see Chapter 10.2

- Preferred nominal outer dimensions per handling unit:
 - 300 x 200 mm or 400 x 300 mm or 600 x 400 mm
 - Outer dimensions per handling unit must be finally defined with Plant Packaging Contact according to type of packaging and transportation mode.

Traceability, identification and information functions

- see Chapter 9 “Identification”
- Package Identification Symbols based on ISO 780:



Figure 10.1-1: Samples of Symbols according to ISO 780

Use functions

- easy to open and re-close
- easy to repack
- re-usable
- environmentally compatible
- easy to dispose of
- hygienic
- without metal brackets or clips for personal safety

Sales functions (Serial, After Market or Trading goods)

- economical
- distinctive, informative
- promotional, easy to open
- easy to re-close
- packaging and labelling according to customer specification

A catalogue of standard packaging meeting these requirements is available by each plant. When selecting packaging, standard packaging material from the receiving plant shall be considered first as it meets the above requirements and has already proved its effectiveness in practice.

Only packaging materials in accordance with the Continental specification shall be used (see Chapter 10.3 "Approved Materials and not Approved Materials").

10.1.2 General Packaging Definition Procedure

It is the responsibility of the logistics department of the Continental plant concerned to define and approve delivery packaging for production materials in cooperation with the supplier and the production scheduling and quality departments of the receiving plant concerned.

The objective is to standardize packaging for all components to the greatest extent possible. Where the same parts are delivered to different Continental plants, efforts should be made to standardize the packaging used for the parts concerned.

Regardless a separate plant specific packaging release is necessary. A notice about this matter in the requested packaging proposal will be helpful.

Following the receipt of an enquiry from the purchasing department, the first step is for the supplier to prepare a packaging proposal for each new part of the product to be delivered.

This proposal shall be submitted on the template "Logistics Costs Break Down" (see Appendix A08) issued to the supplier by the purchasing department and it shall be an essential part of the quotation submitted by the supplier.

The detailed packaging proposal ("Packaging Specification Data Sheet", Appendix A01) submitted by the supplier within the SCR (Supplier Component Review) shall be forwarded by the purchasing department to the logistics department of the receiving plant for review.

The logistics department of the receiving plant shall review the packaging proposal and define the delivery packaging on the basis of the proposal, after discussing any modifications required with the supplier. Upon request by the logistics department of the receiving plant, the supplier shall submit samples plus packaging material and conduct any packaging tests which may be required.

Following the approval of the detailed packaging proposal as a packaging specification (see the standard template Appendix A01), the plant logistics of the receiving plant shall forward one copy of the packaging specification to the purchasing department of the receiving plant for inclusion in the general agreement with the supplier.

A second copy of the packaging specification shall be held by the receiving inspection department of the production plant for inspection of the goods concerned.

The supplier shall be under an obligation to comply with the approved plant specific packaging specification. Any deviations (for example in the event of a shortage of packaging materials) shall be subject to the approval of the logistics department.

If requested by plant specific requirements, each packaging specification for returnable packaging shall include a substitute packaging that may be used in the event of a shortage of returnable packaging.

Before using any such substitute packaging, the supplier shall notify the receiving plant and submit a complaint concerning the shortage of returnable packaging. (See also Chapter 10.9.1.2 "Empty box Supplies"). The supplier should obtain a release for the alternate packaging from the plant logistics of the receiving plant.

In the event of a failure by the supplier to comply with the agreed packaging specification, Continental reserves the right to refuse to take delivery or to repack the goods concerned and to charge the cost of handling and repackaging to the supplier.

The approval of packaging by Continental does not relieve the supplier from its responsibility to supply parts which are free from damage.

The diagram below (Figure 10.1-2) indicates the packaging planning procedure. The various steps from the packaging proposal of the supplier via packaging definition with the receiving plant to approval for series production are shown in parallel to the product approval stages in engineering and purchasing.

A general agreement between purchasing and the supplier cannot be concluded until a complete packaging and labelling specification approved by the plant logistics of the receiving plant is available.

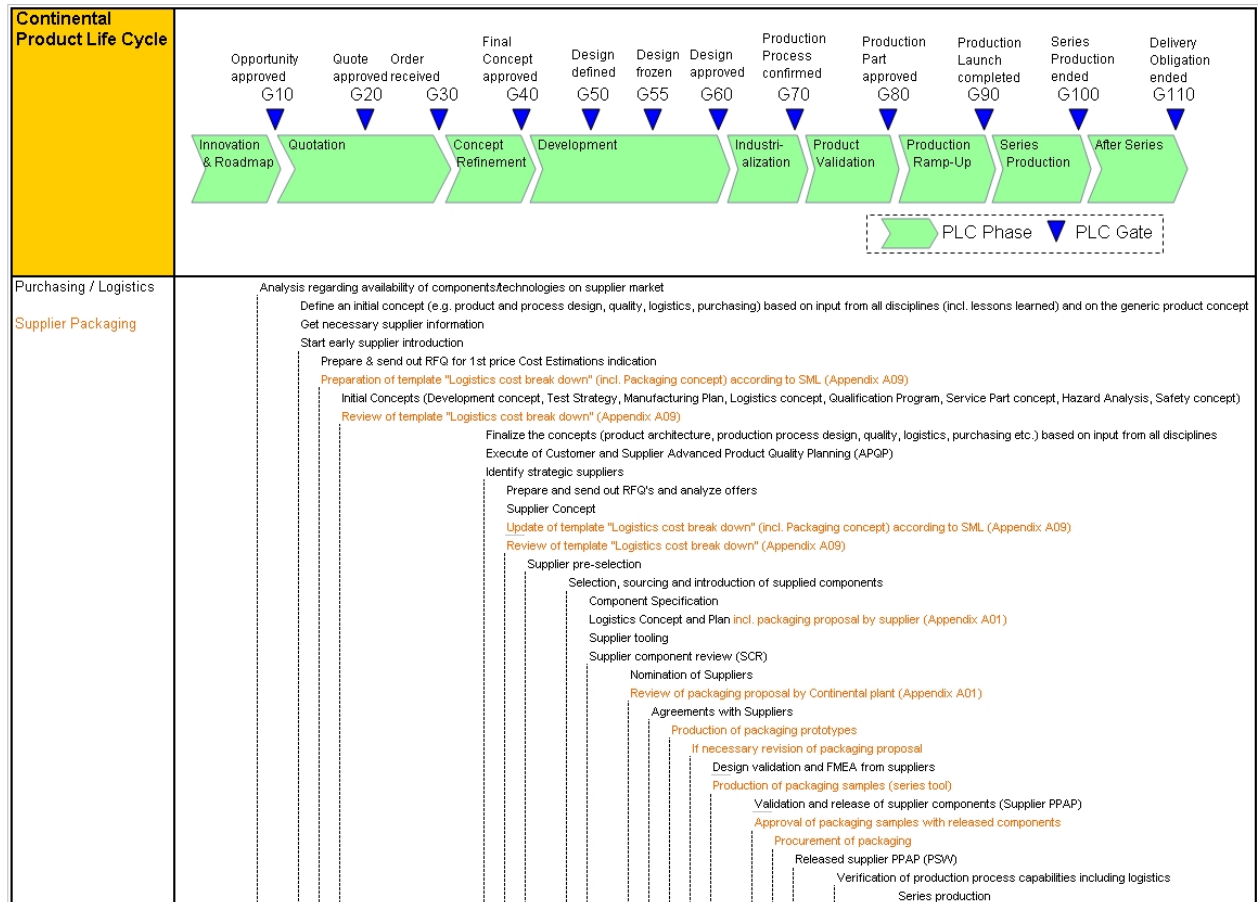


Figure 10.1-2: Packaging planning procedure

10.1.3 Packaging Design Improvements

The supplier has to obey the agreed packaging specification during the whole production run for cost-effectiveness and optimal product protection. If applicable the supplier should contact the receiving plant and provide the new improved packaging proposal.

The following approval process is corresponding to flow described in Chapter 10.1.2 ("General Packaging Definition Procedure").

10.2 Types of Packaging

Packaging may be subdivided into the following types

1. Non-returnable / expendable packaging
Packaging that is used once only
2. Returnable packaging
Packaging that may be used several times
3. Combined packaging
A combination of non-returnable and returnable packaging in one shipment unit

10.2.1 Non-Returnable /expendable Packaging

Non-returnable packaging should be avoided where possible. If non-returnable packaging is preferred to returnable packaging for economic reasons, only packaging, ancillary packaging and loading packaging approved by Continental may be used.

All such materials shall be environmentally compatible and recyclable and shall be marked with the „RESY- symbol“(only for domestic Europe). These materials are defined in "Approved Materials".

The maximum/preferred outer dimensions of non-returnable packaging shall be according to transportation mode:

- Air-freight: 1200 x 1000 x 1000 mm
1140 x 790 x 460/ 750/ 1045* mm
1140 x 980 x 460/ 750/ 1045* mm
- Sea-freight: 1140 x 790 x 460/ 750/ 1045* mm
1140 x 980 x 460/750/1045* mm
- Truck:
 - Europe/Asia 1200 x 1000 x 1000 mm.
1140 x 790 x 460/ 750/ 1045* mm
1140 x 980 x 460/ 750/ 1045* mm

- Americas 1220 x 1140 x 1200 mm, (plant specific definition is possible)
- (* VDA – recommendation 4525, detailed information you can find also in Appendix A04, the height could depend on height of inner packaging and should be the height of the loading unit including the height of pallet.

Maximum height of all loading units should be plant specific (often max. height is 1000 mm).

No unit load may exceed a gross weight of 1000 kg and packaging units shall be stackable:

- Static stacking factor of minimum 3 (1+2) and
- Dynamic stacking factor of minimum 2 (1+1).

No manual handling unit may exceed a gross weight of 15 kg.

Continental-plant specific demands/requirements are to be voted with the logistics department of the receiver's plant directly.

The dimensions stated above are outer contours. Such packages shall not have protruding labels or straps. Especially with cartons, care shall be taken to ensure dimensional stability and appropriately folded lids.

10.2.2 Returnable Packaging

Our environmental target is to use returnable packaging wherever possible. Procedures for determining requirements and the use and purchasing of returnable packaging shall be defined by the plant logistics concerned in cooperation with the supplier (see also Chapter 10.9. "Use of Returnable Packaging")

10.2.3 Combined Packaging

Combined packages represent a combination of returnable and non-returnable (expendable) packaging in one loading unit.

10.3 Approved Materials and not Approved Materials

| Material | | Approved Materials | Not Approved Materials |
|--------------------------|-----------------------------------|---|---|
| Composites | General | | Composites have to be avoided in general or require the separate approval of the particular receiving plant. |
| General Plastics | Disposable | PE, PP, PS, EPP, EPS have to be identified based on DIN 6120, PVC only after explicit approval of receiving plant | PUR, EPS-Chips |
| | Re-usable | ABS, PE, PP, PS, EPP, EPE have to be identified based on DIN 6120, PVC only after explicit approval of receiving plant | |
| Plastic Packing Material | Foams: disposable re-usable | PE PE, PP, PS, PUR | |
| | Shrink and stretch wrapping | Only after explicit approval of receiving plant ! Please see also Chapter 10.6.1 Only PE with material identification based on DIN 6120. | Adhesive tape, stickers or bags made from foreign material |
| | Bags and sacks made of foil | Only PE with material identification based on DIN 6120 Stickers and adhesive tape made from the same materials | Other lettering shall not exceed 3% of the foil surface. Stickers, adhesive tape and lettering made from foreign materials |
| | Expanded polystyrene (Styrofoam) | Only molded parts and only with explicit approval of receiving plant | Avoid stickers and adhesive tape made from foreign material |

| | | | |
|---------------------|--|---|---|
| Paper and Cardboard | General | Has to be free of paper production damaging substances and has to be marked with the RESY-Symbol. | Coatings or adhesives that are not water soluble, e.g., wax, paraffin, bitumen, and oil paper or impregnated papers and cardboard adhesive fabric tapes, plastic bags, fiberglass reinforced adhesive paper tapes, adhesive paper tapes |
| | Corrosion protection paper | For oil coated parts: VCI papers that are proven to be recycled with paper / cardboard. All kinds of papers have to be marked with the RESY symbol. | |
| Strap | General | Polypropylene (PP) Polyester (PET) (= only with special approval of the receiving plant) See also Appendix A04 | Polyamide (PA) straps Steel straps are only admitted with heavy loads and require the explicit approval of the particular receiving plant |
| Wire | General | | |
| | For attachment of labels, shipping bags etc. | Only with special approval of the receiving plant | Not permitted |

Figure 10.3-1: Approved materials and not approved materials

- Plastic inserts**

All plastic inserts require the approval of the packaging department responsible and shall be marked in accordance with DIN 6120.



Figure 10.3-2: PE-HD-Symbol according to DIN 6120 (examples)

Plastic inserts shall be reviewed for recycling potential. PVC inserts shall not be used otherwise a special and actual part and plant specific release exist. All returnable inserts shall be equipped with adequate numbers of drain holes for cleaning.

- **Wood**

Packaging for delivery to several countries shall comply with the appropriate customs and quarantine regulations for wood and wooden packaging materials according to the IPPC-standard.

Pallets and crates shall be made from untreated, bark-free wood. Chipboard, plywood and similar wood-based materials shall not be used without prior approval by Continental. A declaration for non-wood packaging material is necessary for some countries.

The IPPC-Standard achieves international harmonization of phytosanitary measures, with the aim to facilitate trade and avoid the use of unjustifiable measures as barriers of trade.

This International Plant Protection Convention (IPPC) distributes the guideline, which is published with the title „Guidelines for Regulating Wood Packaging Material in International Trade“ (ISPM No.15 = International Standard for Phytosanitary Measures - status 2002).

The guideline has some extensions and the essential points are:

- Is valid only for raw wood. Processed wood material and raw wood packaging with a thickness of less than 6mm are excepted.
- Treatment of the raw wood packaging according to the recognized measures, like:
 - HT = heat treatment with core temperature of 56°C for a minimum of 30minutes
 - MB = fumigation with methyl bromide (is not allowed anymore, by 2006, 1st September in some countries)
 - Boiler pressure impregnate (currently mentioned but not accepted.)
- The marking (shown below) is necessary with an accepted logo. It should be well readable, durable and fixed at two opposite sides of the wood packaging. The printing order is given: country (if n.: state), registration-number of the producer and the kind of approved measure (treatment):

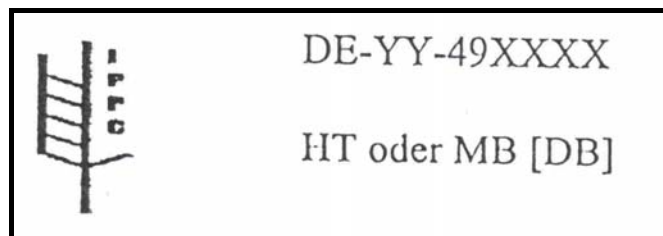


Figure 10.3-3: The marking at treated wooden packaging, IPPC-Symbol

| | |
|--------------|---|
| IPPC-Symbol: | fixed symbol according to appendix II Standards ISPM no.15 |
| DE | ISO-Code for Germany |
| YY | Code for the licence of the appropriate administration (region / federal state) |
| 49XXXX | registration-no for the company who deal with the wood packaging (produce or embrace) |
| HT | heat treatment |
| MB | fumigation with methyl bromide |
| DB | debarked |

- The use of debarked wood could be claimed, but in practice will not be put through.
- The plant protection certification is not longer in demand.

According to the extensions and updating of the import regulation for wood packaging material of different countries, please inform you also via Internet

- United States Department of Agriculture:
 - <http://www.aphis.usda.gov/ppq/wpm/index.html>
- International Phytosanitary Portal (the official web site for the International Plant Protection Convention):
 - <https://www.ippc.int/servlet/CDSServlet?status=ND1ucHBvJjY9ZW4mMzM9KiYzNz1rb3M~>
- Federal Research Centre for Cultivated Plants – Julius Kuehn Institute
 - <http://pflanzengesundheit.jki.bund.de/index.php?menuid=43>
 - <http://pflanzengesundheit.jki.bund.de/index.php?menuid=70>
- Packaging wood – Non - EU-States, who implement the ISPM Standard No.15 (incl. overview reference list of the states):
 - <http://pflanzengesundheit.jki.bund.de/index.php?menuid=28>
- Packaging wood – placing on the market in Germany and trading between the EU-States
 - <http://pflanzengesundheit.jki.bund.de/index.php?menuid=46>
- Packaging wood – Import from Non - EU-States
 - <http://pflanzengesundheit.jki.bund.de/index.php?menuid=44>
- Packaging wood – Export from Non - EU-States
 - <http://pflanzengesundheit.jki.bund.de/index.php?menuid=48>

The requirements of the ISPM No.15 apply only to the import out of and/or export into countries outside of the European Union (EU).

The trade within Germany and between European Union states with the import and export of packaging wood doesn't belong to the ISPM No.15.

- **Plastic sheeting**

Only polyethylene (PE) sheeting may be used. No stickers other than labels may be used. All plastics shall be marked with a material designation in accordance with DIN 6120 (Example for the symbol, see "Plastic Inserts").

Surfaces shall not be printed. Shrinking or stretching plastic sheet shall not be used in general; otherwise it is regulated in plant specific requirements. An appropriate outer packaging shall be used instead of such sheeting. Adhesive tapes and stickers made from other materials will not be accepted.

- **Padding and shock-absorbent material**

The use of padding and shock-absorbent material shall be minimized by adapting quantities to the package size. Packages shall not be padded using expanded polystyrene or chips.

- **Securing devices**

Loads shall be secured using polypropylene (PP) or polyester (PET) straps marked with a material designation in accordance with DIN 6120. Steel straps or metal clips shall not be used without the prior specific approval of the department concerned.

Packaging materials not in accordance with the above specifications shall not be used. Exceptions are subject to written approval by the department concerned in connection with packaging instructions.

It should be noted that these requirements apply to packaging of all types, including any agreed substitute packaging.

10.4 Expendable / Overseas Packaging Requirements

The requirements of the packaging gain of importance with the increase of overseas transportations. The transport claims are enormous during long transit times and distances across different countries and climate zones.

Due to these facts the packaging should adapt to this climatical and mechanical claims, also to the transportation expenses.

To reduce the logistic costs it should be a target to use loading unit dimension which are optimized to the sea-container dimensions like:

- 1140 x 790 x 460/ 750/ 1045* mm
- 1140 x 980 x 460/ 750/ 1045* mm

(* VDA – recommendation 4525, detailed information can also be find in Appendix A04, the height could depend on height of inner packaging and should be the height of the loading unit including the height of pallet.

Maximum height of all loading units should be plant specific definition (often max. height is 1000 mm).

There are some basics to avoid packaging damages during the long overseas transports. The main requirements for an optimal overseas-packaging are:

- Using of 4-way-free-entry block pallets (advisable for wood pallets according to the IPPC-standard)
- Using of outer cardboard box (loading unit = LU) with “wet strength glue/ water resistant glue” and outer and inner cover layer kraft liner is necessary!

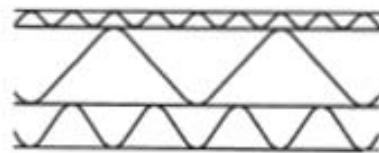
3-flute version of the outer cardboard box is advisable!

The quality requirements [breaking strength, BCT, ECT, thickness, puncture resistance, (wet) bursting strength] are mentioned in the Appendix A04!

That means e.g.:

- Flute sizes “A” = 4,0 to 4,9 mm height (h) mm and 8,0 to 9,5 mm pitch (t)
- 3-flute: Triple-wall corrugated fibreboard

Triple-wall corrugated fibreboard



Flute dimensions

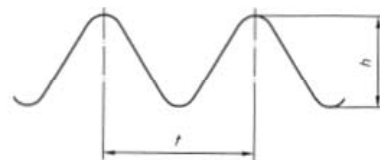


Figure 10.4-1: Triple-wall corrugated fibreboard;

Flute dimension

- Small cartons should be packed inside a LU.
- The small cartons should fill out the LU from bottom to top in order to support outside stacking.
- The construction of the LU should be strong enough for a 2- till 3-times dynamical stackability (1+1 till 1+2 LU). Clear symbol printed of the LU, comprehensible for all nation and languages, are advantageous.
- Using of VCI-protection is preferred or a sufficient number of desiccant bags in dependence on the sensitivity of the parts in exception.
- Securing devices: In general no shrinking or stretching of plastic sheets. Plant specific requirements should be voted by the logistics department. In general, only polypropylene (PP) or polyester (PET) straps are permitted!

The guideline in Appendix A04 is an extract of a specification worked out together with few car manufacturers and 1Tier suppliers worldwide and summarizes the main points and characteristics of the new global standardized expendable packaging specification. Furthermore it visualizes the main requirements and point out unacceptable and acceptable packaging conditions.

For using wooden packaging material see also Chapter 10.3 “Approved Materials and not Approved Materials” – Wood -.

Due to the increase of transport damages presswood pallets are **not** accepted anymore! The presswood pallets don't have a sufficient stability, so that they break easily. Furthermore during stacking, they sink into the packaging unit below, caused by the high pressure due to the little area the feet of the pallet are standing on. Additionally these pallets contaminate their immediate vicinity with splints.

Due to these disadvantages, 4-way-free-entry block pallets with a minimum of 3 skids (see Figure 10.4-3) have to be used (wooden pallet certified according to IPPC-Standard or plastic pallet) instead of presswood pallets.

Not accepted



Accepted



Figure 10.4-2: Not acceptable pallet and acceptable 4-way-free-entry block pallet

(Graphics are courtesy of the National Wooden Pallet and Container Association.)

Block Design

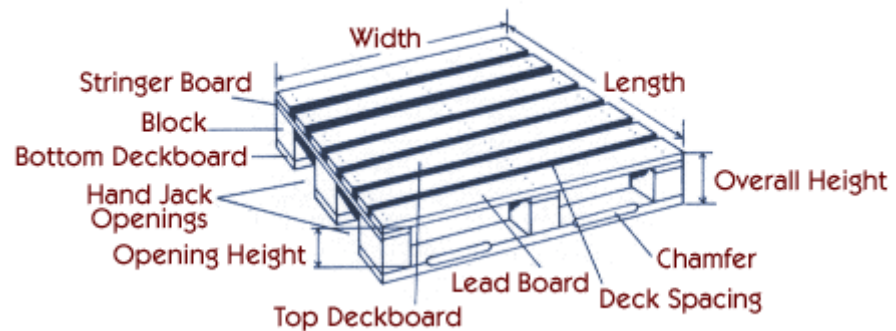


Figure 10.4-3: Definition of a 4-way-free-entry block pallet

Single small cartons at the top of a LU, which initiate a non stackability of the LU, are not permitted. In such cases the supplier should contact the part scheduler of Continental, to optimize the order quantity (demands) in accordance to a stackable packaging unit.

Not accepted



Accepted



Figure 10.4-4: Not acceptable and acceptable loading units (LU)

Load Securing devices in the sea container have to be realized by cargo airbags or treated (IPPC) wooden beams. The use of old wooden pallets as space-stuffing is not permitted. If necessary container stuffing is settled by specialists.

Some important and interesting information about load securing can also be found at the following internet-link:

<http://www.tis-gdv.de>

10.5 General Packaging Requirements for ESD Protection

ESDS (ESD jeopardised particles) have to be protected against charging and fast discharging according to their classified endangerment risk. Without outside protection the ESDS must not come in contact with electrostatic chargeable materials.

It is anytime to be secured, that while the transport and the storage the ESDS are not subjected to an ESD endangerment. Generally the relevant requirements for an ESD fixed packaging count, from the Continental Company Guideline 5.1/CG 01 Continental “ESD requirements” (in the respectively current version)

- DIN EN 61340-5-1
- DIN EN 61340-2-1
- VDA 4504
- ANSI/ESD S20/20

in the here performed order.

The requirements for an ESD packaging are decided by the to be packaged ESDS. The use and the area of the ESD packaging are specified by the responsible plant logistics in voting with the local ESD- coordinator and the deliverer.

A clearance of ESD packaging in a written form of a purchase measurement report is needed.

To defined minimum requirements:

1. Material description based on ESD-capability permanent or temporally limited: anti-static, isolated, screening, conductible, efferent
2. Persuasive additives e.g. chemical additives with temporally defined attributes static inhibitors, coco fatty acid must be pointed out.
3. Measures and accomplishment
4. Electrical characteristics and measuring method (number and location of the measuring point)
5. System function
6. Warning notes identifications after DIN EN 61340-5-1 e.g. allegation of the producer, production date and the recycling symbol.
7. Periodic checking intervals on the basis of the defined criterions
8. Changes of the deliverer are notifications binding and require a written agreement.

10.6 Minimum Requirements for Humidity Control and Corrosion Prevention

Components containing metal surfaces that may be susceptible to rust and are shipping in environments that expose the pack to damp or humid conditions require the use of rust protection methods.

Different kinds of corrosion prevention

- Desiccant bags
- VCI (volatile corrosion inhibitor)
- Corrosion Intercept-Method
- N2-Atmosphere in Aluminum laminated film

Transportation and Storage Conditions

Corrosion prevention methods should be used if any following transportation or storage conditions occur:

- Products originating in the region or with a final destination where normal conditions (during current seasons) include a relative humidity of 50% or higher for 14 consecutive days.
- Sea container transportation
- Products stored for more than 14 days in a warehouse with internal relative humidity of 50% or higher. This includes all storage periods until the product is received at the warehouse.

10.6.1 Methods of Application for Corrosion Prevention

| wrong | | correct |
|---|---|---|
|  | Parts should be packed dry and clean ! |  |
|  | Wear Gloves ! |  |
|  | During packaging procedure : Temperature of product for packaging = Ambient air temperature |  |
|  | Packaging should be closed and dense. Holes and other damages should be closed by adhesive tape. Direct contact with water should be avoided. |  |
|  | At tight bulk density use VCI in the centre of the packaging. |  |
|  | Avoid direct contact between metal and wood, paper or carton. Intermediate layers should also be covered with VCI. |  |

Figure 10.6-1: Methods of application for corrosion prevention

10.7 Dry Pack Moisture Sensitive Devices

Packaging for moisture sensitive devices has to be designed based on industrial standard IPC/JEDEC J-STD-033 and has to be marked with an appropriate label.

The packaging design must avoid the problem of moisture absorption inside the packaging and internal packaging stresses when the device is subjected to sudden, increased temperature, such as during board mounting.

The table below presents the moisture sensitive level (MSL) definitions per IPC/JEDEC's J-STD-033:


| | | | Soak Requirements | | | |
|-------|------------|----------|-------------------|----------|-------------|----------|
| Level | Floor Life | | Standard | | Accelerated | |
| | Time | Cond. | Time (hrs) | Cond. | Time (hrs) | Cond. |
| | | °C / %RH | | °C / %RH | | °C / %RH |
| 1 | unlimited | <=30/85% | 168 | 85/85% | n/a | n/a |
| 2 | 1 year | <=30/60% | 168 | 85/60% | n/a | n/a |
| 2a | 4 weeks | <=30/60% | 696 | 30/60% | 120 | 60/60% |
| 3 | 168 hours | <=30/60% | 192 | 30/60% | 40 | 60/60% |
| 4 | 72 hours | <=30/60% | 96 | 30/60% | 20 | 60/60% |
| 5 | 48 hours | <=30/60% | 72 | 30/60% | 15 | 60/60% |
| 5a | 24 hours | <=30/60% | 48 | 30/60% | 10 | 60/60% |
| 6 | TOL | <=30/60% | TOL | 30/60% | n/a | 60/60% |

Figure 10.7-1: IPC/JEDEC's J-STD-033 MSL Classification

Possibilities for dry packs:

- Moisture barrier bags
- Desiccant bags
- Humidity indicator cards

Packaging for moisture-sensitive devices needs to be marked according to IPC/JEDEC J-STD-033. The following are examples for labels (excerpt from IPC/JEDEC J-STD-033)



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
 - a) Mounted within: _____ hours of factory
If Blank, see adjacent bar code label
 - conditions ≤ 30 °C/80%
 - b) stored at <10% RH
4. Devices require bake, before mounting, if:
 - a) Humidity Indicator Card is > 10% when read at 23 ± 5 °C
 - b) 3a or 3b not met.
5. If baking is required, devices may be baked for 48 hours at 125 ± 5 °C
Note: If device containers cannot be subjected to high temperature or shorter bake times are desired, reference 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



Indicator

Bake Units if Pink

20%

Bake Units if Pink

10%

Change Desiccant if Pink

8%

Discard if Circles Overrun
Avoid Metal Contact

Figure 10.7-2: Indicator Card (HIC), "Moisture-Sensitive Identification" (MSID) and Moisture-Sensitive Identification Label "Caution-Label"

10.8 Packaging for Hazardous Material

Packaging for hazardous material needs to be approved by each plant and material number prior to the first shipment. Also pre-series and sample shipments are forbidden without previous packaging and shipping agreement.

For hazardous materials, the warning symbols must be attached visible on the packaging. Below symbols for references:

| | | | |
|---|--|---|---|
|  <p>Explosives 爆炸品</p> |  <p>Inflammable gases (Class 2) or liquids (Class 3) 易燃气体 (第 2 类) 或者 易燃液体 (第 3 类)</p> |  <p>inflammable solids (Class 4) 易燃固体 (第 4 类)</p> |  <p>Non-inflammable gases 不燃气体</p> |
|  <p>poisonous substances (gases Class 2, other poisonous substances Class 6.1) 有毒物品 (第 2 类和第 6.1 类)</p> |  <p>liable to spontaneous combustion 易自燃物品</p> |  <p>substances which, in contact with water, emit inflammable gases 遇水释放出易燃气体的物品</p> |  <p>oxidizing substances and for organic peroxides 氧化剂和有机过氧化物</p> |
|  <p>infectious substances 感染性物品</p> |  <p>radioactive substances 放射性物品</p> |  <p>corrosive substances 腐蚀性物品</p> | |

Figure 10.8-1: Hazardous materials warning symbols

10.9 Use of Returnable Packaging

Continental is using returnable packaging to an increasing extent. Returnable packaging offers opportunities for the optimization of the logistic chain at the company's partners. In addition, the re-use of boxes is part of the Continental environmental policy. Packaging re-use cycles are integrated in the environmental management system in accordance with ISO 14001.

If the kind of packaging is chosen, it is absolutely necessary to look at the economic efficiency and the whole logistic process. In each Continental plant the re-usable packaging has to be considered carefully.

In view of the growing volumes and values of the packaging involved, it is essential to implement uniform procedures in relations with all suppliers. In addition, standardization is required for planning new packaging cycles and budgeting for these cycles.

Two main arrangements are possible for the use of returnable packaging.

1. The packaging is owned by the Continental plant
2. Special packaging owned by the supplier

(Only in special cases, where specific packaging is required cost split has to be agreed.)

(Supply excluding packaging is the normal case, if standard boxes are used; after a stock horizon has been defined, a maximum box limit is laid down for the supplier.)

The supplier can use his own boxes or re-usable packaging in coordination with the purchasing department and the logistics department or project team of the appropriate receiving plant. This supplier-owned packaging has to be presented before the contract is completed and approved by each individual receiving plant. A regulation regarding return transports (freight, insurance), repair, shrinkage, washing, has to be coordinated with the responsible department.

10.9.1 Determination of Requirements for Boxes Owned by Continental

The Continental plant concerned is responsible for defining packaging (on the basis of the supplier's proposal), for selecting the appropriate box type for each part to be delivered and for defining the box handling cycle.

Box requirements for each supplier are calculated per article number on the basis of current part requirements, delivery frequency and lead times (see calculation procedure – the template "Definition of the Packaging Loop" – Appendix A03). The basis and results of the calculation have to be agreed with each supplier.

Suppliers are required to state reasons, if they wish to increase their box stocks. Additional quantities supplied without adequate advance planning may result in supply bottlenecks (see Chapter 10.9.1.2 "Empty Box Supplies").

10.9.1.1 **Box Purchasing**

Continental returnable packaging is purchased directly by the plants concerned on the basis of the requirements calculated in accordance with the procedure described above. The boxes remain the property of the plant concerned and are intended only for the supply of parts to that plant (see also Chapter 10.9.1.2 “Empty Box Supplies”).

Additional box quantities required by suppliers, for example to pack advance production in order to cover vacation periods, will not be purchased by the Continental plants concerned. Such additional boxes shall be purchased only from the plant concerned by the supplier. Free purchasing of Continental boxes without central function or plant specific release is prohibited.

Obtaining and ordering boxes from Continental plant is only permitted by the particular receiving plant. The packaging movement has to be coordinated with the plant logistics of the receiving plant.

10.9.1.2 **Empty Box Supplies**

Suppliers receive empty boxes directly from the Continental plant concerned. The Continental plants keep empties accounts for each supplier and compare them with current box requirements. The supplier shall afford Continental all reasonable assistance for the maintenance of empties accounts. Particularly missing empties are on schedule reminded so that the empties scheduler still can react (see Chapter 10.1.2 “General Packaging Definition Procedure”).

Any demand fluctuations shall be agreed without delay between the supplier and the Continental plant concerned. The supplier shall use its best efforts to avoid the use of substitute packaging and shall require plant authorization in advance.

Continental boxes shall not be used for deliveries to other Continental plants without the permission of the Continental plant which owns such boxes. However, suppliers delivering parts to more than one Continental plant in the same type of boxes shall not be under any obligation to segregate the boxes received from the various plants. In such cases, it shall be sufficient to agree on the use of the boxes with the plants concerned.

10.9.1.3 **Empty Box Inventory Management**

Empty box inventories will be kept by the Continental plant concerned and shall be checked by the supplier. Suppliers will receive regular boxes account statements covering all types of boxes used. These statements indicate the current boxes stocks held by the supplier taking into account any boxes received and issued (on the basis of delivery notes and bills of lading).

The supplier shall be entitled to object to any boxes account statement within a period of four weeks of the receipt of the statement. If no objections are received by Continental within such period of four weeks, the supplier shall be deemed to have approved of the statement, which shall then form the basis for the calculation of any discrepancies.

Any objections by the supplier shall be submitted to the Continental plant concerned with copies of the relevant delivery notes. Boxes may only be credited to the supplier's account if they are clearly indicated and designated according to the receiving plant requirements on the delivery notes in accordance with DIN 4991 issued by the supplier.

Upon the receipt of empty boxes, the supplier shall be obligated to verify the types and quantities received by comparison with the bills of lading. In the event of any discrepancies, the supplier shall correct the bill of lading, obtain a receipt from the driver and submit the corrected bill of lading with the receipt to the Continental plant concerned for the correction of the supplier's boxes account.

10.9.1.4 Empty Box Inventory Handling

In order to maintain empty - box cycles, annual reconciliation of recorded and actual box stocks is required. Such reconciliations shall be conducted by each Continental plant and each supplier at the end of each calendar year (or upon request).

The supplier shall be obligated to take a physical inventory of the boxes in stock. For this purpose, the supplier will receive in good time an inventory list with detailed instructions from each Continental plant concerned.

The empty boxes records kept by the Continental plant will then be compared with the inventory lists received from suppliers. The empty boxes records of Continental will then be corrected by adjustment entries to reflect the stocks of boxes actually held by suppliers.

10.9.2 Identification of Boxes

Apart from the identification of the boxes with information for the boxes management, the actual boxes or their components may be marked with special labels (created by Continental) or signs (boxes ID).



Figure 10.9-1: Sample of container ID

The identification or Ident barcodes of the boxes shall not be damaged or taped up.

10.9.3 Handling of Special Boxes Owned by the Supplier

The handling of special boxes owned by the supplier shall be agreed in each specific case by the supplier and Continental and laid down in exhibits to the general agreement.

10.10 Delivery of Returnable Small Boxes (VDA R-KLT)

It is the aim of Continental plants to introduce uniform packaging schemes throughout the company. For small production parts, Continental uses VDA small boxes (R-KLT) in accordance with VDA recommendation 4500.

10.10.1 Type of small boxes

In order to achieve its standardization objectives, CA uses the following small boxes types depending on the characteristics of the products to be packed:

- R-KLT 3215 (300 x 200 x 150 mm)
- R-KLT 4315 (400 x 300 x 150 mm)
- R-KLT 4329 (400 x 300 x 280 mm)
- R-KLT 6415 (600 x 400 x 150 mm)
- R-KLT 6429 (600 x 400 x 280 mm)

The modular KLT system, restricted to five preferred small boxes types at CA, is a major step towards box standardization and also takes environmental constraints into account in reducing the use of disposable packaging by component producers and suppliers in the automobile industry.

Where suppliers believe that the use of other KLT series boxes would represent an improvement (in terms of quantity or quality), the supplier may make an alternative proposal to Continental. The economics of all packaging concepts shall be reviewed prior to plant-specific approval.

10.10.2 Description of the small boxes (R-KLT)

The small boxes are of modular design, allowing the stacking of R-KLT 3215, 4315 4329, 6415 and 6429 in one stack.

With the exception of R-KLT 3215, all the boxes are equipped with a ribbed bottom allowing interlocking stacking and ensuring a high degree of securing devices for the entire loading unit.

The top stacking edge of each box shall be left free in order to allow interlocking stacking.

R-KLT 3215 has a smooth bottom and can only be stacked in blocks.

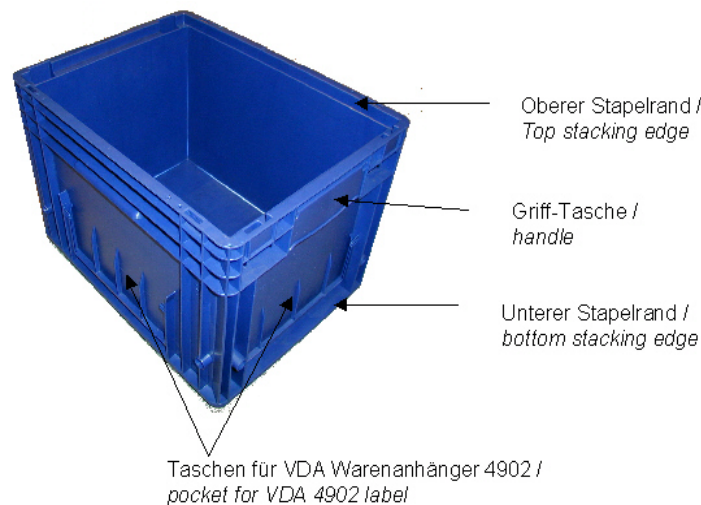


Figure 10.10-1: Description of the small boxes (R-KLT)

10.10.3 Assembly of a loading unit with small boxes

For a correct and acceptable loading unit a 4-way-free-entry block - pallet with a circulated safety border, small boxes (R-KLT), a stackable plastic cover and minimum 2 plastic straps are required:

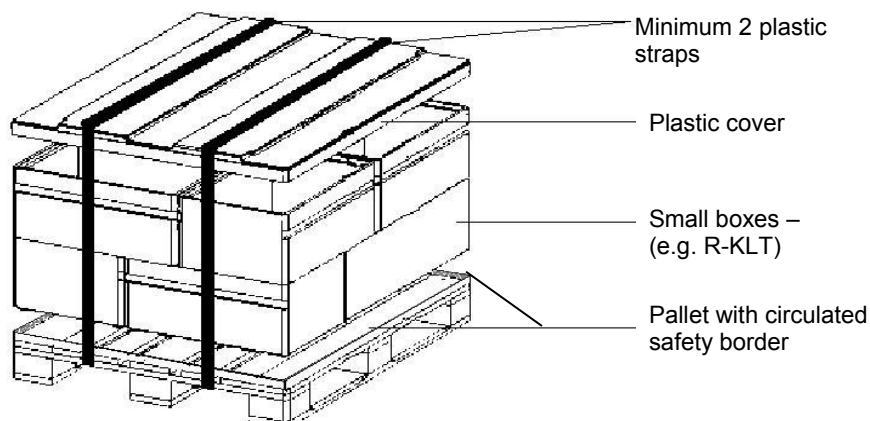


Figure 10.10-2: Necessary components of a loading unit with small boxes

10.10.3.1 General requirements for delivery of small boxes

- Full loading units and layers shall be formed always.
- If a stackable layer can not be formed, the supplier should obtain an agreement with the Continental purchasing and receiving plant to optimize the quantity of the parts per small boxes and per loading unit.
- The use of empty small boxes to fill up a layer will not be allowed.
- Mixed load should be made up for each Continental plant.
- Different loading heights on the same pallet are not allowed.
- The 4-way-free-entry block-pallet must have a minimum of 3 skids (min. width of skids 90mm) and should preferably returnable with circulated safety border.
- The small boxes shall be positioned flush with the edges of the pallet.
- When delivering very small quantities, the number of layers shall not exceed 2.
- The small boxes shall be positioned on the pallet in an interlocking stack.
- Minimum two plastic straps shall be run around the entire loading unit. To prevent damage, plastic straps shall not be run around pallets without covers.
- Steel straps are not allowed.
- Each small box shall be legibly marked.
- Special marking is required for mixed pallets.
- The loading unit shall not be shrunk or stretched.

Individual small boxes shipped without pallets shall be closed using an appropriate small box- cover and fastened using a plastic tape. The cover shall not be fastened in place using an adhesive tape.

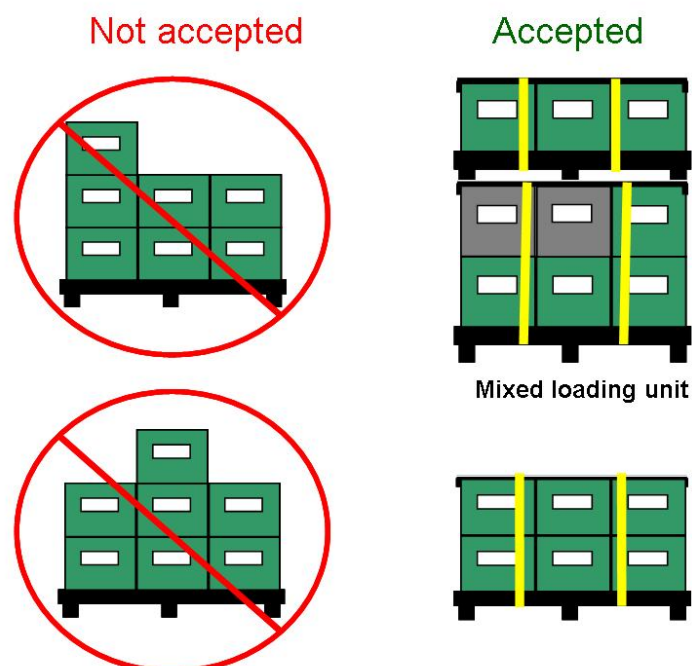


Figure 10.10-3: Not acceptable and acceptable LU with small boxes

Remark: Wooden Pallets (meant for one-way corrugated shipments) shall not be used to transport returnable containers (small boxes), without consulting the receiving plant.

Wooden Pallets lack the locking mechanisms associated with returnable pallets and their use constitutes a potential hazard due to the possibility of containers sliding off.



Figure 10.10-4: Unacceptable example of a LU with small boxes

10.10.4 Assembly of Loading Units for the Return of Empty Small Boxes

General requirements for delivery / return of empty small boxes:

- Empty small boxes shall be properly stored and shipped and protected against dirt and moisture.
- In order to ensure effective protection, empty small boxes shall be stacked on pallets with the openings downwards.
- Any empty small boxes received in a dirty or damaged condition shall be marked as such and returned to the party responsible.
- Each loading unit shall include only one type of box.
- Each layer shall be complete with number of boxes:
- Two plastic straps shall be run around the entire loading unit.

10.10.5 Shrinking, Stretching or Wrapping of Loading Units

Shrinking, stretching or wrapping of loading units shall be avoided in general, because of

- Additional handling for removing
- Additional waste
- Employment protection / safety of work
- Problems of the process

But in special cases plant specific requirements could permit it.

10.11 Marking

The requirements on marking of goods is regulated in Chapter 9 “Identification”

10.12 Accessories/ Internal Packaging

Only clean small boxes may be used. For quality reasons, if appropriate for the product and agreed with the Continental plant concerned, each box shall be lined with a sturdy polyethylene bag (PE- folding bag) with a thickness of at least 100 µm, according to plant specific requirements.

In order to achieve a smooth manufacturing process, it is necessary to obtain clean vendor parts in clean boxes. Thus each supplier is obligated to keep the boxes clean. Dirty boxes may not be used. If dirty boxes have been detected, the replacement or cleaning issue has to be coordinated with the plant concerned.

The maximum weight per box shall be agreed with the Continental plant concerned. The gross weight per small box should not exceed 15 kg.

The design of internal packaging shall be agreed with the Continental plant concerned. Only wear-proof materials may be used.

10.12.1 Approval of Packaging

For each article number, the supplier shall complete and submit to the Continental plant concerned a packaging approval application using the attached “Packaging Specification Data Sheet” (Appendix A01). The template shall be submitted to the appropriate contact in the plant logistics.

Packaging approval by the Continental plant concerned is required for any packaging. The supplier shall apply for such approval using the template “Packaging Material Release” attached in the Appendix A02, which shall be returned to the supplier upon the issue of approval.

The supplier shall not deliver any products to Continental before the inner and outer packaging (returnable) required for such products has been approved by the Continental plant logistics in the receiving plant.

11. Risk Management

The standards required by our customers are continuously targeting higher levels. The objective of Continental is to ensure customer satisfaction as a basis for sustained success in the market and in competition. Quality of logistics processes must be ensured as well. Risk management is a process that continuously helps to reach this goal through identifying, analyzing and taking steps to eliminate and prevent possible delivery failures in the logistics processes.

Therefore, it is mandatory for the supplier to have a risk management process in place in order to ensure deliveries even in abnormal situations. Such risk management process and related regulation shall be provided to Continental upon request.

11.1 Global MMOG/LE: Logistics Self-assessment

The Global MMOG/LE (Global Material Management Operations Guideline / Logistics Evaluation) is requested by Continental from the suppliers to self-assess their logistics processes.

Global MMOG/LE was developed jointly by ODETTE and AIAG and follows the ISO/TS 16949:2002 standard.

The current valid version of the questionnaire can be downloaded on the ODETTE homepage: www.odette.org

All suppliers are requested to download and fill in the English version of the questionnaire.

The purpose of the self-assessment is to inspect logistics processes or systems for weaknesses, to analyze their root causes and to identify areas of improvement.

A weighted scoring system has been designed to point out areas which should be given a higher priority. This allows the supplier to focus on the urgent issues to avoid the risk of not meeting Continental's requirements. Nevertheless, every question in the document is of great importance.

Based on the outcome of questionnaire, supplier can achieve A-B-C levels:

- A-Level Definition: The supplier far surpasses minimum standards in every aspect and can be considered at or near "world class" standards.
- B-Level Definition: The supplier is deficient in several areas that will impact its ability to support the needs of the customer. An action plan should be in place, and the corrective action SHOULD NOT require a significant amount of time (3 months or more) to implement.
- C-Level Definition: The supplier is deficient in one or more critical/high-impact aspects of a given category. Action plans are required to ensure deficiencies do not result in serious or prolonged issues to the customer.

The result of this self-assessment has a significant impact in Continental's supplier logistics evaluation (more in Chapter 5 Supplier Evaluation).

Suppliers in existing business relationships with Continental are approached by Continental and requested to carry out self-assessments once a year. New suppliers evaluate themselves before entering a new business relationship with Continental.

Continental reserves the right to carry out on-site logistics audits by arrangement with the supplier.

11.2 8D Report

If requested, suppliers must provide Continental with a full problem solving report (8D report) to tackle possible problems in existing processes.

In order to achieve this, supplier shall have trained personnel with the ability to quickly and permanently resolve problem issues according to the 8-Discipline process.

For any case of non-conforming processes the Supplier shall have a complaint handling flow process in place that allows the Supplier to respond within the time frame defined in the table below.

The respective reaction time period shall begin with the initial notification to the Supplier by Continental that a problem exists.

8D disciplines

- D1: Define a team for problem solving
- D2: Problem description
- D3: Implement containment actions
- D4: Define root cause(s) released within 3 days released within 24h
- D5: Choose permanent corrective action
- D6: Implementation of permanent corrective action
- D7: Action(s) to prevent recurrence
- D8: Prevention of repetition

11.3 Lifetime Supply

As a company conducting business in the automotive industry, supplier hereby acknowledges that Continental is obligated to supply spare parts to its customers after the end of each series production. The horizon depends on the customer requirements. In general an availability horizon of minimum 15 years is requested.

Therefore, when accepting to deliver components for mass production as serial deliveries, the supplier also commits to organize its production resources and strategy in order to be able to deliver small quantities of components for end of life production and spare parts need during the same period.

In addition, in order to avoid any problems in logistics processes connected with product discontinuation, Continental implements the Product Termination Notification (PTN) process.

- Regarding customized components, a lifetime supply (series and aftermarket requirements) must be guaranteed by the supplier. Consequently no product discontinuation will be accepted.
- As for standard components, a lifetime supply should be guaranteed for the series production. In case of unavoidable product discontinuation, the supplier must send a PTN to Continental in writing minimum 12 months prior to such discontinuation.

All affected Continental part numbers shall be identified with the PTN. The supplier shall specify alternative components / solutions for a replacement.

If the PTN leads to a last time forecast/buy, Continental provides the supplier with forecasts information.

The products must be stored at the supplier's premises and remain in ownership of the supplier until they are shipped according to the delivery schedules and/or purchase order of Continental. The supplier is responsible for the correct storage handling and quality of the products. Furthermore, quantities terminated for Continental are exclusively to be delivered to the Continental location, which forecasted the products.

11.4 Obligations in Emergencies

The supplier is required to draw up and distribute an emergency plan within its organization and to Continental for the eventuality of disturbances affecting its logistic processes and the supply of goods to Continental plants.

Disturbances may include, for example:

- Relocation of tools and machinery
- Capacity problems
- Damage or delays in shipment
- Non-conformities
- Tool breakage
- Disturbances in supplies from subcontractors
- Computer problems
- Force Majeure (flood, wind, hurricane, tornado, earth quake, explosion, or similar catastrophe; hostilities, restraint of rulers or people, civil commotion, act of terrorism, strike, labor dispute, blockade or embargo; or any act of nature, fires, accident, epidemic or quarantine restrictions)

These events may affect the logistics processes, production and distribution as well as contract handling.

Suppliers are required to develop, define and implement emergency procedures to ensure smooth supplies to Continental even in the event of such disturbances

12. Logistics Automotive Contacts

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13. List of Abbreviations

| | |
|----------------|--|
| 3PL | Third Party Logistics Provider |
| 8D | 8 Disciplines |
| AIAG | Automotive Industry Action Group |
| ANFAVEA | Associação Nacional dos Fabricantes de Veículos |
| ANSI | American National Standards Institute |
| AQP | Advanced Quality Planning |
| ASEAN | Association Of South- East Asian Nations |
| ASN | Advanced Shipping Note |
| BASE | Basic Annual Supplier Evaluation |
| CA | Continental Automotive |
| CMI | Customer Managed Inventory |
| CSV | Character Separated Values data format |
| DIN | Deutsches Institut für Normung |
| EAR | Export Administration Regulations |
| ECCN | Export Control Classification Number |
| EDI | Electronic Data Interchange |
| EDIFACT | International EDI standard (Electronic Data Interchange For Administration, Commerce, and Transport) |
| ESD | Electrostatic Discharge |
| ESP | External Service Provider |
| EU | European Union |
| FIFO | "First In, First Out" principle |
| GALIA | Groupement pour l'Amélioration des Liaisons dans l'Industrie Automobile |
| Global MMOG/LE | Global Materials Management Operations Guideline / Logistics Evaluation |
| GXS | Global eXchange Services |
| IPPC | International Plant Protection Convention |
| ISPM 15 | International Phytosanitary Measure (developed by IPPC) |
| ISO | International Standards Organization |
| JAMA/JAPIA | Japanese Automobile Manufacturers Association / Japan Auto Parts Industries Association |
| JIT | Just In Time |
| LU | Loading Unit |
| MRP | Material Resource Planning |
| MSL | Moisture Sensitivity Level |
| NAFTA | North American Free Trade Agreement |
| ODETTE | Organization for Data Exchange by Tele Transmission in Europe |
| OFTP | ODETTE File Transfer Protocol |
| PE | Polyethylene |
| PerMo | SupplyOn Performance Monitor |
| PET | Polyester |

| | |
|----------|--|
| PP | Polypropylene |
| PTN | Product Termination Notification |
| PVC | Polyvinyl chloride |
| SupplyOn | Electronic Marketplace for Automotive Suppliers |
| TSA | Transportation Security Administration |
| VCI | Volatile Corrosion Inhibitor |
| VDA | Verband der Automobilindustrie (German Association of the Automotive Industry) |
| VMI | Vendor Managed Inventory |
| WebEDI | Web based Electronic Data Interchange |
| WW | Worldwide |

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15. List of Appendices

| Name | Former Name | Updated? | Description |
|---------------------|-------------|----------|---|
| Appendix A01 | Appendix E | √ | Template: Packaging Specification-Data Sheet |
| Appendix A02 | Appendix A2 | | Template: Packaging Material Release |
| Appendix A03 | Appendix F | √ | Template: Definition of the packaging-loop (Range of coverage of the circulation) |
| Appendix A04 | Appendix O | √ | Guideline of expendable packaging / Optimization of overseas-packaging |
| Appendix A05 | Appendix Q | √ | TSA - Air Cargo security procedure |
| Appendix A06 | SN 55228-2 | | SN 55228-2: Requirements for Goods Labelling and Information to Accompany Goods for Purchased Series Parts with 2D- Label. |
| Appendix A07 | CN 855228-2 | new | Continental Norm CN 855228-2: Supplement to MAT-Label Specification |
| Appendix A08 | - | new | Template: "Logistics Costs Break Down" |