



Supplier Logistics Manual TPV AUTOMOTIVE

1000362

Izdaja 05

Stran 1 od 27

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In the »TPV AUTOMOTIVE`s Supplier Logistics Manual« definitions from »1000403 TPV AUTOMOTIVE's General Terms and Conditions of Purchase« and down mentioned explanations are used:

Products and Services	Material (raw material), C-elements, Complex elements, Completion Services
Material (raw material)	Metal sheets, tubes, wires, KTL raw material
Sheet metal	Including, but not limited to, metal sheets in coils and blanks of different dimensions (based on norm: hot rolled, cold rolled, galvanized, multi-phase, stainless and aluminium).
Tubes	Including, but not limited to, stainless and steel tube, circular, rectangular, square and oval tubes, standard length or cut at requested dimension (based on norm: weldless cold drawn tubes, welded cold drawn tubes, welded cold sized tubes, welded cold sized square and rectangular tubes).
Wires	Including, but not limited to, wires in coils and rods, galvanized wires, welding wires in drums and coils.
C-elements	Standard and nonstandard C-elements. Including, but not limited to, welding elements, self clinching fasteners, rivet elements, slide bearings, ball bearings, washers, spacers, clips, springs, rubbers, plugs, axles, mirrors, covers, composite parts of sealing sets.
Standard C-elements	C-elements based on DIN EN norms or standards of Buyer`s Customer or based on catalogue of Supplier. Including, but not limited to, welding elements, self clinching fasteners, rivet elements, slide bearings, ball bearings, washers, spacers, clips, springs, rubbers, plugs, axles, mirrors, covers, composite parts of sealing sets.



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Nonstandard C-elements	C-elements based on the Buyers` or Buyer`s Customer drawing. Including, but not limited to, welding elements, self clinching fasteners, rivet elements, slide bearings, ball bearings, washers, spacers, clips, springs, rubbers, plugs, axles, mirrors, covers, composite parts of sealing sets.
Complex Elements	Products and services based on the Buyer`s or Buyer`s Customer drawing. Including, but not limited to, stamping parts, bending parts, cast parts, forged parts, plastic parts, aluminum profiles and complex assembled parts.
Completion Services	Including, but not limited to, surface protection, surface treatment, metal refinement, plastification, metal treatment, sewing.

1 Introduction

Deliveries of Products and Services shall be made to the Buyer in compliance with the »TPV [AUTOMOTIVE`s](#) Supplier Logistics Manual« and »[1000403](#) TPV AUTOMOTIVE`s General Terms and Conditions of Purchase”.

The purpose of this »TPV [AUTOMOTIVE`s](#) Supplier Logistics Manual« is to provide the Supplier with a better understanding of their responsibilities and the Buyer`s requirements.

The Buyer develops a pull-flow production strategy that closely involves the Supplier. This strategy is based on simple concepts, including:

- Small manufacturing batches,
- Reusable packaging,
- Easy-to-handle small boxes and bins,
- Buyer`s delivery call offs and forecasts – (SAP Scheduling agreement release),
- Use of EDI (Electronic Data Interchange system),
- Identification of components by standard labeling,
- Deliveries according to FIFO.
- Frequent deliveries,
- Smoother production and supply,
- Measurement of Supplier Delivery Performance.

These specifications define standards for business relationship between the Buyer and the Supplier. It reflects what the Buyer requests from the supplier, starting from initial inquiry to serial production.



2 Basic concepts

2.1 Delivery concept

The Supplier shall deliver to the Buyer in accordance with the processes described below and defined in the following documents:

1. »Logistics cost analysis form (LAF)«,
2. »Packaging data sheet«,
3. »SAP Purchase order« (one time orders) or »SAP Scheduling agreement release« – Call offs (repetitive orders).
4. »Firm and forecast orders with timetable«.

The Buyer reserves the right to change the agreed delivery conditions. The Supplier is bound to implement such changes given by the Buyer.

Any changes given by the Supplier shall be approved by the Buyer ([Development commercial sector](#)).

2.2 Call-offs (Scheduling agreement release)

The Buyer requests call-off as EDI messages. If the Supplier is unable to receive EDI messages during a transitional period of time, call-offs shall be sent by e-mail. Communication channel is agreed in the document »Firm and forecast orders with timetable«.

Call-offs include forecast needs (plan) and/or fix orders as agreed in the document »Firm and forecast orders with timetable«. The aim is to allow the Supplier sufficient time to manage their master production schedule and to program their own supply program, to provide pick-up and delivery on due date and time.

Confirmation of the call-offs is not necessary, because the Buyer presumes that the Supplier will deliver according to the quantities and deadlines specified in the call-offs.

In case of increased consumption and upon a previous check with the Supplier, the Buyer may issue additional needs to the usual ones.

If the Supplier faces capacity constraints, the Supplier will alert the Buyer's logistics department as soon as possible (at the latest within 24 hours). In this case, the Supplier and the Buyer will discuss and agree the necessary actions. Otherwise, the Supplier is considered able to meet the Buyer's needs.

Late or advanced deliveries are not allowed. This will trigger logistics claim with all consequences.

The costs incurred by such claim shall be dealt with in accordance with the document »TPV [AUTOMOTIVE's](#) claims price list« available on the website <http://www.tpv-automotive.si/>.



2.3 Minimum order lot

Minimum order lot is defined as a packaging unit in the document »Packaging data sheet«. In general for Sheet metal and Wires it represents 1 coil, for Tubes 1 bound and for C-elements 1 pallet. By default, one reference per pallet is allowed. Mix pallets need to be agreed separately.

2.4 Safety stock

Safety stock is defined by the Supplier and it shall prevent any delivery deviation. When agreed that the safety stock shall be kept at the Supplier, it shall be permanently available and renewed. The Buyer reserves the right to check the safety stock at the Supplier and their sub-supplier. The Supplier Security Plan shall be taken in consideration as mentioned in section 9 of this document.

2.5 Calculation of the logistics cost

The Supplier undertakes to fulfill and send the document "1000393 Logistics cost analysis form (LAF)" together with the offer for delivery of Products and Services. Logistics costs include transport costs, packaging costs and customs duty.

2.6 Terms of delivery

The Buyer and the Supplier need to agree on the terms of delivery for all Products and Services. The Buyer shall apply INCOTERMS 2020.

In general the Buyer shall use DAP (DDP) or FCA (EXW). Other INCOTERMS 2020 can be used if logistics costs reduce which shall be confirmed by the Buyer.

Delivery address "deliver to" shall be one of the Buyer's [factories](#).

2.7 Exceptional transport

In the event the delivery is at risk and when the Supplier is responsible for a missed delivery, the Supplier shall at his own expenses arrange an exceptional transport to deliver the missing Products and Services. The delivery shall be made within the requested time.

2.8 Ramp-Up production phase

During the ramp-up production phase specific actions shall be taken in terms of product and service deliveries. To follow the Buyer's customer needs some values shall be adapted:

- Order lot,
- Lead-time,



- Delivery frequency ,
- Stock at the Supplier's plant.

The Buyer shall inform the Supplier about new values immediately after receiving these data from the Buyer's customer. The Supplier is considered to be ready to follow low quantities and irregular delivery frequency during this stage.

2.9 End of production

The Buyer commits to communicate the date or/and the volume of end of production (EOP) immediately after receiving such information from the Buyer's customer. There are three major targets at EOP:

- No obsolete raw material, components and products,
- No missing raw material, components and product at this stage,
- No additional costs.

The Supplier commits to provide to the Buyer all information concerning the stock of Products and Services within 3 days from the Buyer's request about EOP.

The last delivery requested by the Buyer might not be rounded up to a minimum order lot or full pallet or full handling unit. Supplier is required to deliver or prepare the specified quantity with no additional costs.

After EOP date, the Supplier shall carry out a final inventory of obsolete Products and Services. Any obsolete Products or Services shall be kept isolated until the Buyer's customer decision. All requested data shall be sent in requested time as the obsolete claim has to be sent to the Buyer's customer on time.

2.10 Spare products and services

The Supplier undertakes to be able to deliver spare Products and Services 15 years after the end of production. Any shorter or longer period will be agreed separately. Also supply rules and packaging definition will be agreed and updated between the Buyer and the Supplier.

Supplier undertakes to store all Products and Services and Equipment for production of spare components and products.

2.11 Authorised Economic Operator (AEO)

TPV AUTOMOTIVE d.o.o. is the holder of an AEO license (authorized economic operator). The Supplier undertakes to provide the necessary security conditions related to compliance with customs and tax legislation, systems for keeping business and transport records that enable appropriate customs controls, solvency, security and safety standards, and appropriate training and professional qualifications.



3 Packaging standards

3.1 Buyer's packaging policy

The Buyer prefers:

- Returnable packaging.
- Use of non-reusable packaging needs to be avoided because it generates waste on production lines.
- C-elements shall be delivered in small packaging units. Use of big packaging units shall be possible only exceptionally and shall be confirmed by the Buyer.
- Maximum weight of a small packaging unit is 15 kg.

The aim is to establish a rational and standardized packaging system that will provide a smooth flow of Products and Services due to the following aspects:

- Respecting standard of occupational safety and environmental protection.
- Economic efficiency.
- Securing material flow together with dispatch and transport quality.

The following requirements shall be met, regardless of packaging type (returnable or re-usable):

- Delivery without damage.
- Optimal packaging unit (for transport, stackability).
- Compliance with standard dimensions.
- Use of recyclable materials.
- Marking of packaging items (material selection and maximum load).
- Goods shall be delivered corrosion-protected, and free of dust, dirt, oil and grease.
- Use of »Packaging guidelines«.

The packaging shall not be made of material containing any prohibited substances. The approved packaging materials shall be in compliance with EU regulations.

Any deviation from the »Packaging guidelines« shall result in logistics claims with all negative impacts. The costs incurred by such claim shall be dealt with in accordance with the document »TPV AUTOMOTIVE claim price list« available on the website <http://www.tpv-automotive.si>.

3.2 Returnable packaging ownership

The general Buyer's guideline regarding packaging ownership is that the returnable packaging is owned by the Supplier. Supplier procures the appropriate quantity of returnable packaging which is needed for the



whole chain including transport. For maximum efficiency the returnable packaging shall be provided in full load units. In general it shall be exchanged 1:1.

In some cases the returnable packaging shall be provided by the Buyer. In such cases, the packaging for safety stock and internal process at the supplier is under supplier's responsibility and investment.

The returnable packaging shall be provided at least 3 months before the start of production (SOP).

3.3 Packaging definition

The aim is for Supplier and Buyer to define packaging which satisfies all the necessary requirements within the supply chain and production process. The definition needs to be followed unless otherwise approved by the Buyer.

The procedure is used in the phase of submitting the supplier's offer for the supply of products and services, as it is the basis for logistics cost calculation. It needs to be taken into account for each individual product and service.

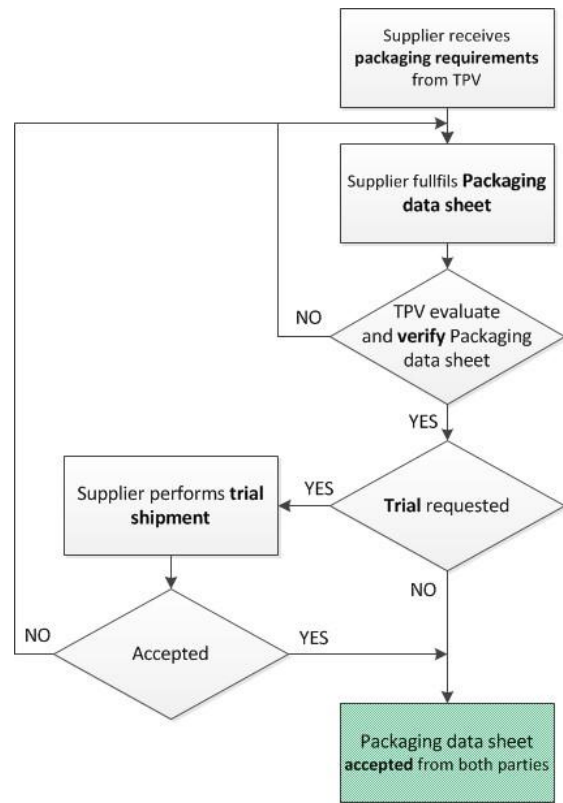
Process of packaging definition is described in the flowchart below. Main steps are as follows:

- The Supplier checks the Buyer's packaging requirements. Detailed preferred list of returnable packaging is introduced in the »1000359 Catalogue of Standard Packaging«. If suitable standard packaging is available for their products, the Supplier shall use such standard packaging. If no packaging is available in the »1000359 Catalogue of Standard Packaging«, the Supplier can suggest their own solution. To document the packaging proposal, the Supplier shall fill in the document »107623 Packaging data sheet«.
- The Buyer verifies packaging or requests a trial run to check suitability of packaging.
- When packaging meets all requirements, the Packaging data sheet will be signed by both parties.



The following principles shall be taken into account:

- If the Supplier does not use the agreed packaging, a claim (item 6) will be arised. The Buyer reserves the right to charge the additional handling or repacking costs to the supplier.
- Justified deviations in packaging in ramp-up phase or alternative packaging need to be agreed between both parties. The notation »Alternative packaging« needs to be indicated on the delivery note.



3.4 Returnable packaging volume definition

The required quantity of returnable packaging shall be determined on the basis of data agreed upon between the Supplier and Buyer. The respective Buyer's and Supplier's obligations are as follows:

The Buyer shall take into account the quantities for the following purposes:

- Full packaging before production;
- Undergoing the production process;
- Safety stock;
- Empty packaging intended for shipment;
- Undergoing the transport to the supplier.

The Supplier shall take into account the quantities for the following purposes:

- Empty packaging before production;
- Undergoing the production process;
- Safety stock
- Full packaging intended for shipment;
- Undergoing the transport to the Buyer;



Packaging loop shall to be validated by both the Buyer and Supplier:

- Necessary quantities for one day production;
- Necessary packaging quantities in the loop undergoing the production;
- Rules for packaging investment between the Buyer and Supplier;
- Schedule release of the packaging in the loop.

In the case the Supplier decides to work in a different opening time, they shall bear extra cost arising from such situation.

3.5 Rules on managing the returnable packaging owned by the Buyer

When agreed to use the returnable packaging owned by the Buyer, the Supplier commits to check out packaging quantities indicated on delivery note. The Supplier will send a claim within 1 day after reception of the packaging in the plant if there is a discrepancy in quantities and/or quality of the packaging.

The Supplier commits not to divert packaging from its intended use:

- Internal production process for other Products or Services.
- Intermediate storage of Products and Services.
- Advance stock due to the Supplier's internal reasons: different opening time, maintenance workshop activity....
- Storage of components outside the valid material schedule.
- Safety stock storage.

Scrapping the packaging owned by the Buyer shall always be subject to the Buyer's approval.

Supplier can be charged for any discrepancies in packaging management under their responsibility.

3.6 Packaging rules

In project phase the Supplier shall be requested to fulfill for each component »107623 Packaging data sheet« as proposal (see item 3.3). Use of »Standard Packaging Catalogue« is mandatory unless in exceptional cases.

Before packaging investment the »107623 Packaging data sheet« needs to be agreed and signed by both parties.

Any exceptions need to be approved by Buyer. Deliveries to Buyer which do not comply with the released »107623 Packaging data sheet« will automatically lead to a logistics claim by the Buyer.

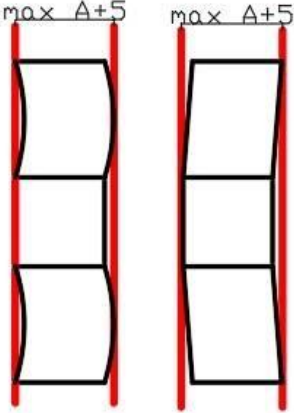


3.7 Specific packaging rules for raw material (Sheet metal, Tubes and Wires)

If not otherwise requested, the packaging rules for Sheet metals, coils and Wires are as follows:

Type of material	Packaging type (label of packaging)																							
Steel in coils transport – flat position transport (TPV AUTOMOTIVE Code 010101)	<p>Coils shall be placed in a flat position on wooden bars (80×80 mm) made for transport wrapped with four strips. In case of several coils per a transport unit, the coils shall be separated with bars of 50×50mm.</p> <p>Inner diameter of coil: 500-508 mm</p> <p>Outside diameter of coil: 1200-1450 mm (in case that maximum weight is achieved the outside diameter can be lower than prescribed).</p> <p>Maximum coil weight: 5000 kg (in case of weight excess TPV AUTOMOTIVE approval is required).</p> <p>Maximum weight of transport unit (coil's width >120 mm): 5000 kg; Maximum weight of transport unit (coil's width <120 mm): 3500 kg; Maximum height of transport unit is 650 mm. This shall not apply for coils of 500mm in height. Recommended number of coils per transport unit in relation to the coil's height:</p> <table border="1"> <thead> <tr> <th>Coil width (mm)</th> <th>>225</th> <th><225</th> <th><133</th> <th><88</th> <th><60</th> <th><42</th> </tr> </thead> <tbody> <tr> <td>Number of coils</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> </tbody> </table> <p>Minimum number of wrapping strips per coil: Lengthwise (axial) min 1×, transversal (radial) min 2×. Recommended number of wrapping strips par coil in respect of coil's width:</p> <table border="1"> <thead> <tr> <th>Coil height</th> <th>>250 mm</th> <th><250</th> </tr> </thead> <tbody> <tr> <td>Nb of transversal bands</td> <td>min. 3× (120°)</td> <td>min. 2× (180°)</td> </tr> <tr> <td>Nb of lengthwise bands</td> <td>2</td> <td>1</td> </tr> </tbody> </table>	Coil width (mm)	>225	<225	<133	<88	<60	<42	Number of coils	1	2	3	4	5	6	Coil height	>250 mm	<250	Nb of transversal bands	min. 3× (120°)	min. 2× (180°)	Nb of lengthwise bands	2	1
Coil width (mm)	>225	<225	<133	<88	<60	<42																		
Number of coils	1	2	3	4	5	6																		
Coil height	>250 mm	<250																						
Nb of transversal bands	min. 3× (120°)	min. 2× (180°)																						
Nb of lengthwise bands	2	1																						



<p>Steel in coils unloading – standing position on transport (TPV AUTOMOTIVE Code 010103)</p>	<p>The coils must be stacked on the trailer in a standing position for loading and unloading by crane.</p> <p>The coils must be in the groove. Smaller coils up to 200 mm wide must be connected by 5 straps evenly distributed across the diameter and one strap around the coil. Larger coils must be connected by 4 straps evenly distributed across the diameter and 3 straps around the coil. In the case of several coils on a transport unit, they must be separated by a minimum distance of 500 mm. The trailer must be capable of opening the roof.</p> <ul style="list-style-type: none">• Inner diameter of coil: 500-520 mm.• Outer diameter of coil: 1800-2000 mm. <p>In case the maximum weight is reached, the outer diameter may be smaller than prescribed.</p> <p>Max weight of coil: 20.000 kg (in case of higher weight special approval from TPV AUTOMOTIVE is necessary)</p> <p>It is allowable to deliver coils where max width of coil measured between end points on both sides is 5mm bigger than nominal width of strip (A).</p> 
<p>Steel sheets (TPV AUTOMOTIVE Code 010102)</p>	<p>Sheets shall be placed on the wooden cross-shaped bars (2x2) made for transport by forklifts (minimum free height 100 mm, minimum free width 600 mm) or on pallets wrapped with strips (2x transversal and 2x lengthwise).</p> <p>Maximum gross weight: 2500 kg.</p>



Tubes in bundles (TPV AUTOMOTIVE Code 010201)

Tubes shall be tied with metal strips lined with wood and formed into 4 or 6 angle bundles.

Bundles shall be separated by wooden bars of 80×80 mm. Number of tying strips according to tube length:

Tube length (m)	Število povezovalnih trakov
5,5-6,5	5
3,5-5,5	4
1,5-3,5	3
< 1,5	2

Maximum width and height shall be 600 mm.

Maximum weight of a bundle: 1500 kg.

Guideline: to approach the weight of a bundle of 1500kg taking account of other restrictions.

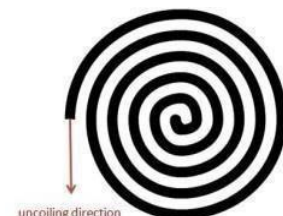
Wire in coils (TPV AUTOMOTIVE Code 010301)

The coil shall be tied with four steel strips and fasteners and placed on wooden cross-shaped bars – pallet for transport by forklift (minimum free height of 100 mm, minimum free width of 600 mm). Steel strips and fasteners shall not cause any mechanical damage to the wires. Maximum coil weight: 1200 kg

Coil dimensions:

- Minimum inner diameter of coil: 500 +50-0 mm,
- Maximum outside diameter: 900 mm,
- Maximum coil height: 600 mm.

The direction of uncoiling is anticlockwise.



Guideline: to approach the maximum weight or maximum outside diameter and height.

Wires in bars (TPV AUTOMOTIVE Code 010302)

Bars shall be tied with metal strips into a bundle. Bundles shall be separated by bars of 80×80mm. The metal strips shall not cause any damage to the material.

Maximum distance between strips shall be 1,7m (2 bindings at least).

Maximum weight of a bundle: 1000 kg.

Guideline: to approach the weight of a bundle of 1000 kg.



3.8 Environment

All material deliveries shall comply with requirements laid down in the first paragraph of Article 59 and Article 33 of the EG regulation 1907/2006 (REACH). The Supplier undertakes to monitor on regular basis substances entered in the SVHC list and to notify the Buyer in written and without delay about the content of these substances in materials and products supplied to the Buyer. Unless Buyer receives from the Supplier a notification about the content of such substances, the supplied materials and products shall be considered as free of SVHC substances.

Materials and components delivered to the Buyer shall be produced in compliance with the European directives 2000/53/EC and 2005/63/EC and related annexes.

Prior to the first delivery, the Supplier shall provide the data registration on chemical composition in the IMDS base available on <http://www.mdssystem.com/> and shall send it through the system to the receiver i.e. TPV AUTOMOTIVE on its ID number 11962. The Supplier shall regularly update any changes regarding the material, composition..., and notify them to the Buyer.

Only exceptionally the Supplier may provide the material composition on a form made by the Buyer and available on request in the ENVIRONMENT department. By submitting the material composition on a form, the Supplier undertakes that all delivered materials shall comply with the requirements of the GADSL list in force available on <http://www.gadsl.org/> which is the only valid list. At the first delivery, the supplier shall make out a signed and stamped declaration that his materials are free of substances bearing the identification code P above the permitted limit and those bearing the identification code D shall be declared with the name of the substance, CAS number and a percentage proportion of this substance in the material. Whenever there is a change in material composition the Supplier shall notify Buyer of any such changes.

Materials incorporated into products used in the food industry have to be safe, material substances must not be released to foodstuffs which are brought into contact with these products, therefore, all delivered materials shall be in compliance with the Regulation (2023/2006 ES) laying down rules on a good production practice for the group of materials and products from the Annex I to the ES Regulation No 1935/2004, intended to be in contact with foodstuffs. As compliance evidence, the supplier shall submit a signed and stamped declaration.

The Supplier undertakes to also observe and comply with the EU and RS legislation.

For the purpose of protection against corrosion, the supplier shall use biodegradable products and shall send to the Buyer the safety data sheet for the used product.

3.9 Good practices and safety

Products and Services shall be stored in a dry and closed place. During the transport, they shall not be exposed to adverse weather conditions e.g. rain, snow and moisture, otherwise they shall be properly



protected. One transport unit (metal sheet coil, tube bundle and wire coil) shall contain only one batch of material. In case of several metal sheet coils per transport unit, the coils can be from different batches, however they shall all contain a label with the batch number.

Pallet wrapping in film is not in accordance with packaging policy due to environmental issue, safety issue (use of cutters) and is time consuming.

Cardboard use with returnable packaging needs to be on minimum. Use only to assure quality of packed raw material, components and products.

3.10 Packaging material

The Supplier shall provide the Buyer with the packaging specification to show the type of packaging (cardboard, plastics, metal and wood) and the quantity per packaging unit. This information needs to be written down in the »107623 Packaging data sheet« document.

By giving a stamp and signature of the responsible person on the »107623 Packaging data sheet«, the Supplier confirms the compliance of the packaging with requirements in force within the EU directives (directive 94/62/EC and the associated decisions and adoption of the European commission).

Packaging material to be used:

Type of material	YES	NO	Remarks
ABS, HDPE – polyethylene of high density, LDPE – polyethylene, PP – polypropylene, PS – polystyrene,	X		
PC	X		With customer's approval.
EPS, PUR, PVC		X	
Paper and cardboard	X		Free of substances hindering the production of paper. Coatings shall be avoided (e.g. wax coating, paraffin eax coating, bitumen or oil coating, impregnated paper and cardboard).
Wood	X		The Supplier commits that any wooden packaging material (pallets, coils, shims,...) shall be delivered to TPV AUTOMOTIVE in compliance with all technical requirements according to the norm ISPM – 15.
Steel strips	X		
Other			Use of other materials is permitted only upon a prior approval of the TPV AUTOMOTIVE Environment Division.



Any used packaging material shall be dry or protected against corrosion at the points which are in contact with steel.

Whatever the packaging material, it cannot be steel-reactive (example: small pieces of wood pushing into the coil and thus hindering the process of stamping). Otherwise, the surface between the packaging material and the steel needs to be additionally protected.

3.11 Alternative packaging

If the Supplier faces the problems to Products and Services in serial packaging, the Supplier shall inform the Buyer to obtain an approval to launch an alternative packaging. Alternative packaging may incur extra costs to the Buyer's plant, therefore the Buyer and the Supplier commit to find the best way to sort out the issue. After the Buyer's approval, Supplier can use the alternative packaging.

3.12 Maintenance of returnable packaging

Damaged or unsuitable packaging shall be registered at reception in the transport document This rule shall apply for both the Buyer and the Supplier.

Minimum once per year, an inventory shall be carried out with both parties in order to investigate the quality and number of packaging in the loop. After this inventory, both parties shall agree upon the number of packaging to be refurbished or replaced. An estimated budget shall be determined within this agreement.

Maintenance cost is shared 50% / 50% between the Supplier and Buyer, unless full responsibility of one of the parties is proved.

The Supplier and Buyer commit to carry out an inventory at any time if necessary.

Supplier commits to send the inventory data not later than the third day after receiving the request.

3.13 Storage conditions for returnable packaging

If empty packaging is stored outside, the Supplier commits to take all necessary actions to ensure the quality of the components packed in such packaging. The Supplier shall detail the actions taken in this respect.



3.14 Cleaning of returnable packaging

The Supplier shall always use clean packaging only.

The Buyer will not clean the packaging before dispatching back empty packaging to the Supplier. In case the Supplier wants to clean the packaging, he will inform the Buyer by mail to explain the cleaning method used in order:

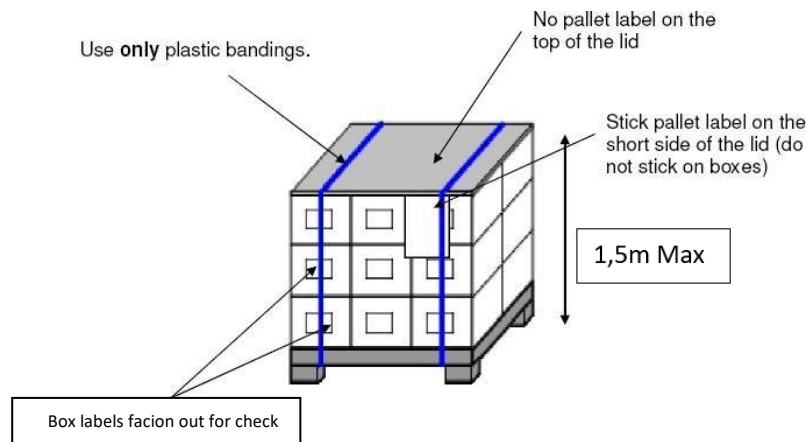
- Not to damage the packaging;
- To prevent a lack of containers in the loop.

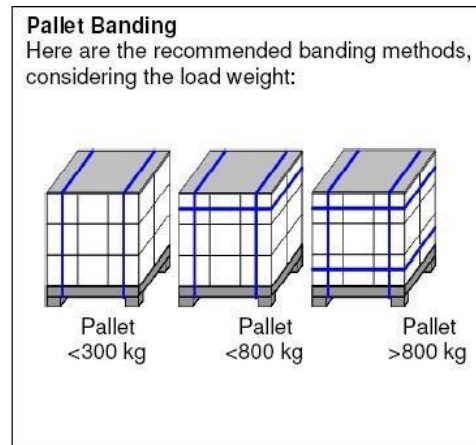
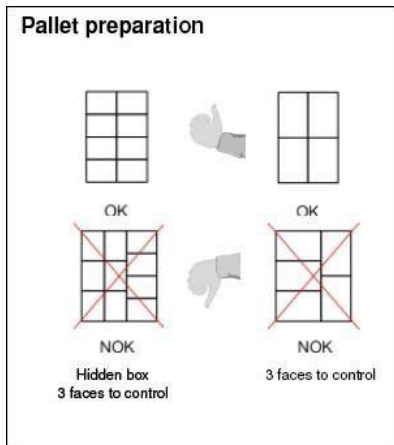
4 Labeling

This chapter describes labeling and transportation rules for commonly handling units e.g. pallets, Sheet metal, coils, Tubes and Wires.

4.1 Pallet labelling

By default, the label is placed on the shorter side of the pallet (width).

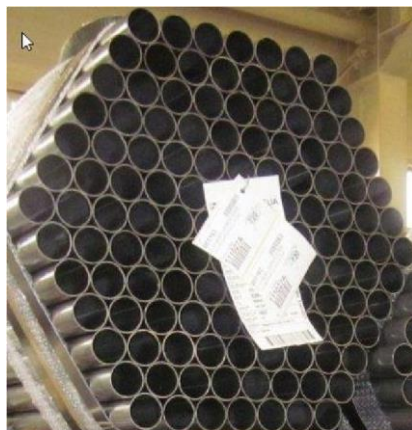




An example of a properly labeled and bound pallet.



Example of marking pipes and profiles.





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Example of wire reel marking.



The Buyer accepts two types of labels on packaging units (small packs, boxes):

- **KLT Label** (see VDA 4902 norm) or
- **ETI 9** (see Gallia Odette norm)

and two types of labels for handling units (pallet, gitterboxes, transport units):

- **Transport Label** (see VDA 4902 norm) or
- **Galia Odette Ver.1 Rev.8** (see Gallia Odette norm)

VDA 4902 - KLT Label

(1) ship-to party SUPPLIER	(2) unloading point - storage location - usage RAUKC//	(3) delivery note no. (N) 30002233
(8) customer ref. no. (P) C04798-102		
(9) Quantity (Q) 40	(10) description of delivery, service SBG CROSSTUBE TA 4W L	
(12) vendor no. (V) 16245	(11) supplier ref. no. (305) 408190	
(15) package no. (S) 106283652	(13) date of production P150327	(14) engineering change status 102
	(16) batch number. (H) 20150327	



VDA 4902 – Transport Label

Nadimek SUPPLIER		Kraj izdelka CV100	
N° dokumentacije		Nadimek in država TPV d.d. PE Velika Loka	
N° poravnave		Nadimek 8212 VELIKA LOKA	
Kodirani ID 976689-101		N° šteta	
Kodirani ID 374		N° šteta 330 415	
Dokirani ID XC		Nadimek proizvajalca HV-WELLE SBG LH	
N° veljavnosti 102515565		Nadimek 304409-000	
N° veljavnosti 20101109		Nadimek P101109	
VDA 4902 Ver. 4		VDA 4902 Ver. 4	

4.2 Labeling for Sheet metal, Coils and Wires handling units

Each transport unit shall bear a label in accordance with Gallia Odette or VDA 4902 standards.

In exceptional cases and with the Buyer's approval the label shall contain at least the following data:

- Name of Supplier,
- Material labelling – (see »Material labelling« in the List of special requirements; there shall be a clear link between the material labelling featured on the label and certificate).
- Material designation (see »Material designation (dimensions)« in the List of special requirements; the designation shall contain at least dimensions of material). The order of dimensions shall be as follows:

Product group 0101xx

Sheet metal in coils: thickness x width

Steel metal in sheets: thickness x width x length

Product group 0102xx

Tubes in bundles: external diameter x wall thickness x length

Right-angled tubes in bundles: width x height x wall thickness x length

Product group 0103xx

Wire in coil: diameter

Wire in bars: diameter x length

Right-angled wire in bars: width x thickness x length

- Material SAP number (see »SAP code« in the List of special requirements),
- Supplier's batch (numerical and with bar code),
- Quantity (numerical and with bar code).



Product group 0101xx

Sheet metal in coils: Quantity in (kg) gross/net

Steel metal in sheets: Quantity in (kg) gross/net

Product group 0102xx

Tubes in bundles: Quantity in (m) exceptionally in (piece) and in (kg)

Right-angled tubes in bundles: Quantity in (m) or (piece) and in (kg)

Product group 0103xx

Wire in coil: Quantity in (kg)

Steel wire in bars: Quantity in (m) or (piece) and in (kg)

Number of packaging units (e.g. number of coils per transport unit),

Date of production (numerical and with bar code).

In the event the product is considered as a safety part, the label shall contain the safety part symbol. The label shall be placed in a visible position in accordance with the document »1000445 TPV AUTOMOTIVE's Supplier Quality Manual«.

5 Transportation

Supplier's dispatch areas shall be opened according to the agreement »1000360 Firm and forecast orders with timetable«.

The frequency of delivery is likely to be modified according to the variations in production volumes at the Buyer.

Truck loading operation shall be carried out under a roof area to prevent any contact with water on Products and Services. In case truck loading/unloading operation is not carried out under the roof by the Supplier the Supplier shall prevent any quality issue of the products and services.

The Buyer usually practices side loading and unloading. Rear loading and unloading shall be specified in the document »1000360 Firm and forecast orders with timetable«.

Truck loading



- Ensure all pallets are prepared for safe loading
- Stack pallets for space optimisation
- Ensure all pallets labels are clearly visible



5.1 Delivery note

Each Product and Service delivery shall be accompanied by a delivery note. In case of EDI implementation (see paragraph 2.2) the Supplier is committed to send also electronic delivery note (DESADV, VDA 4913).

Should there be no electronic data interchange between the Buyer and Supplier, the delivery note shall include at least the following information:

- Delivery note number,
- Supplier data with address and supplier number assigned by the Buyer (evident from the order),
- Date and place of issue,
- Receiver data with address,
- Receiver order number and date,
- Delivered goods data: reference, designation, quantity, custom nomenclature number, state of origin,
- Shipment number (needed for goods traceability),
- Number of packaging units by type. In case returnable packaging is the Buyer's property, the Buyer's reference numbers shall be added,
- Incoterms conditions,
- Gross and net weight.

6 Compensation claims

In case of a logistics failure upon receipt or after opening the packaging unit, the Buyer shall send a compensation claim form to the Supplier. The Supplier shall reply with **8D report** taking into account the 8D deadlines specified in the item 6 of the document »Quality Manual for TPV AUTOMOTIVE Suppliers«.

The cost incurred by this, shall be charged according to the »TPV AUTOMOTIVE's Claims price list« available on the website <http://www.tpv-automotive.si>.

Compensation claim will be raised for the following logistics discrepancies:

- Quantity discrepancy
 - Discrepancy between delivery note, ASN and physical quantities.
 - Shortage due to wrong parts delivered.
 - Quantity per packaging not compliant with specifications.
 - Underdelivery or overdelivery.
- Time discrepancy
 - Delivery outside the agreed delivery timeframe.



- Packaging
 - Packaging not compliant with specifications.
 - Damaged packaging (handling or safety problems).

- Labeling
 - Incompliant labeling.
 - Label –item mismatch (wrong parts).
 - Delivery documents.

- Shipping documents ,
 - Delivery note missing or unusable.
 - Delivery note incomplete or with errors.

- Transport
 - Load not compliant with delivery plan.
 - Noncompliance with safety instructions.

- EDI
 - Faulty electronic delivery notification (EDI – ASN).

The Supplier shall cover all extra costs (stoppage costs etc.) incurred in the supply chain from the Buyer onward if his responsibility is proved for:

- Incomplete delivery by the Buyer to their Customers due to the lack of raw material, components or products delivered from the Supplier to Buyer.
- Buyer's or their Customers' production line stoppage due to the lack of raw material, components or products delivered from the Supplier to Buyer.

In case of rejected raw material, components and products identified from the Buyer Quality Department, the Supplier shall take whatever action is necessary to provide replacement of goods, so that the Buyer's production is not disrupted. In this case arrangements concerning delivery are made between the Supplier and the Buyer's Logistics department.

7 Information system

EDI exchange of information is binding on both the Buyer and the Supplier. They shall both make every effort to implement the EDI transmission as soon as possible. The non-implementation of EDI connection shall not exclude the cooperation.



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The EDI communication between the Buyer and the Supplier shall always be made using the Buyer SAP number as the reference number of the goods.

All delivery call-offs shall be transmitted through EDI. Use of Web EDI is optional. In case EDI is not implemented, the delivery call-offs shall be sent by electronic mail.

By using EDI:

- The Supplier can integrate the data in their ERP and thus minimize errors and reduce their workload.
- The preferred standard messages need to follow the norms as follows:

Firm needs + forecast needs	EDIFACT	DELFOR D.96a
	VDA	VDA 4905
Delivery note (ASN)	EDIFACT	DESADV D.96a
	VDA	VDA 4913

8 Supplier logistics performance evaluation (MPM)

The Supplier shall deliver properly labelled and exact quantity of raw material, components and products at the time requested by the Buyer. The indicator of the Supplier's delivery performance is the ratio between the number of misdeliveries and the total of all deliveries per delivery note, multiplied by 1.000.000. Misdeliveries are considered those which result in logistics compensation claim (section 6).

$$MPM = \frac{\text{Number of misdelivered references}}{\text{Number of all ordered references}} * 1.000.000$$



Example:

In one year 44 orders for 15 different references were issued. Once 1 reference was delivered in a wrong quantity.

$$\text{Yearly MPM} = \frac{1}{44 * 15} * 1.000.000 = 1.515$$

MPM ranking is good and a standard warning is issued.

Strategic target for the Supplier is 0 MPM. The Supplier commits to organize his operation in a way to achieve this target. Otherwise, the Supplier commits to make an action plan and communicate it to the Buyer in order to achieve the target.

Ranking	Bad	Low	Medium	Good	Best
MPM	100.000 < MPM	30.000 < MPM < 99.999	5.000 < MPM < 29.999	1.000 < MPM < 4.999	MPM < 999

The MPM indicator is one of the criteria used to measure the Supplier's performance on yearly basis, carried out by the Purchasing Division. Corrective measures in relation to the MPM discrepancies are included in the annual supplier assessment.

9 Security plan

The Supplier commits to develop a specific Security Plan for each project assigned by the Buyer in order to provide security measures securing deliveries to the Buyer in at least the following points:

- Materials:
 - Quality defect,
 - Delivery problems by sub-suppliers,
 - Capacity problems by sub-suppliers,
 - Storage problems

- Manpower:
 - Operators absence,
 - Untrained employees,
 - Employee strike.



- Process:
 - Quality issues,
 - Design changes,
 - Industrialization delay,
 - Wrong labeling,
 - No shipping documents.

- Equipment:
 - Machine breakdown,
 - Damaged tooling,
 - Control tools breakdown,
 - Information network breakdown,
 - Communication breakdown,
 - Software problems,
 - Information hardware breakdown.

- Transport:
 - Vehicle breakdown during transportation,
 - Carrier strike,
 - Components damage,
 - Roads blockade,
 - Customs problems.

- Environment:
 - Fire,
 - Meteorological reasons (flooding, storm, hail...)
 - Power breakdown (electrical, gas, air...).

Solutions can be as follows: safety stock, preventive maintenance, backup production sub-contractors, equipment spare parts, emergency transportation (express, plane...), backup route...

Security Plan shall be submitted to the Buyer's Logistics Department in written form and need to cover all duration of the project.

In the event of noncompliance with the purchase order, the Buyer may require weekly reports on products in stock (quantity in stock per part number) at the Supplier's plant. The Supplier commits to answer by mail on the day of the request. In exceptional cases, the Buyer may require a daily communication.

10 Abbreviation index



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- ASN - Advance shipping notice
- EDI - Electronic Data Interchange
- SOP - Start of production
- EOP - End of production
- ERP - Enterprise resource planning. A category of business-management software. A typical suite of integrated applications that an organization can use
- MPM - Misdelliveries Per Million
- WEB EDI - Web based Electronic Data Interchange
- 8D - Problem solution method in 8 steps used as a standard method and report form