Delivery and Packing Regulation

Guidelines for deliveries to AVL List GmbH

1 Purpose .................................................................................................................................................. 2
2 Scope of application ................................................................................................................................. 2
3 Packing instructions .................................................................................................................................. 2
  3.1 Packing material ............................................................................................................................... 2
  3.2 Maximum weight ............................................................................................................................... 3
4 Shipping guidelines .................................................................................................................................. 3
  4.1 Labelling and accompanying documents ......................................................................................... 3
5 Assumption of costs .................................................................................................................................. 5
6 Transport damage ..................................................................................................................................... 5
7 Delivery times .......................................................................................................................................... 5
8 Contact .................................................................................................................................................... 5
1  Purpose

This regulation contains all requirements concerning the packaging and the delivery of goods to AVL List GmbH.

2  Scope of application

The regulation is valid for every delivery of goods which is supplied to locations of AVL List GmbH. The following instructions are an additional contractual agreement to the purchase orders which are submitted by AVL buyers. Deliveries of goods will be standardly checked at the goods receipt regarding the compliance with these requirements. Any deviation from the regulations set out below will be part of the supplier evaluation system of AVL.

3  Packing instructions

Paragraph 2.5 of the General Purchase Conditions determines that packaging has to observe the respective packaging standards to guarantee a delivery free of damage and an efficient AVL internal manipulation.

In general the packing of deliveries from suppliers have to fulfil the following minimum directives:

- Protection against damage in transit
- Protection against pollution
- Protection against storage damage
- Protection against moisture with desiccant, which has to be enclosed to the packaging
- Parcels with more than 30 kg have to be fixed on a pallet for smooth handling with a forklift
- The goods must be fasten in the middle of the pallet, so that they do not exceed the measures of the pallet
- Wooden packaging has to have removable and reclosable covers and side panels (screwing or closure systems)
- All required shipping marks according to the international standards and the gravity marking (if the centre of gravity is not in the middle) has to be done on each package.

AVL and its suppliers cooperate in the fulfilment of waste economy goals of environmental legislation according to the following ecological priorities:

- Avoidance: Restriction to the necessary packing size regarding weight and volume (resource conservation and reduction of transport volume).

3.1  Packing material

In the logistic chain from the supplier to AVL, the following types of packaging are used whereby the packer/sender is liable for the delivery quality of the packed goods:
### Material

<table>
<thead>
<tr>
<th>Disposable packaging</th>
<th>Permitted material</th>
<th>Not permitted material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reusable packaging</td>
<td>PE, PP</td>
<td></td>
</tr>
<tr>
<td>Shrink and stretch wrap</td>
<td>PE</td>
<td></td>
</tr>
<tr>
<td>Expanded polystyrene (Styrofoam)</td>
<td>not allowed</td>
<td></td>
</tr>
<tr>
<td>Packaging chips</td>
<td>Free of harmful substances; VCI-papers which have proven recyclable together with protective paper with paper/cardboard (VCI: Volatile Corrosion Inhibitor)</td>
<td>not allowed</td>
</tr>
<tr>
<td>Paper and Cardboards</td>
<td>Plywood, pressed wood or treated wood according to IPPC Standards</td>
<td></td>
</tr>
<tr>
<td>Wood</td>
<td>Plywood, pressed wood or treated wood according to IPPC Standards</td>
<td></td>
</tr>
</tbody>
</table>

### 3.2 Maximum weight

<table>
<thead>
<tr>
<th>Material</th>
<th>Maximum weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parcels</td>
<td>≤ 30 kg</td>
</tr>
<tr>
<td>Cardboard pallets</td>
<td>≤ 500 kg</td>
</tr>
<tr>
<td>Cardboard pallets by air</td>
<td>≤ 150 kg, ≥ 150 kg in box</td>
</tr>
<tr>
<td>Barred box</td>
<td>≤ 1000 kg</td>
</tr>
<tr>
<td>Euro-pallet</td>
<td>≤ 1000 kg</td>
</tr>
</tbody>
</table>

Principally, deliveries on truck have to be in a shed. If the weight of the goods is less than 500 kg, they can be packed in cardboards on a pallet.

A seaworthy crate packaging is required for delivery via sea freight and the following specifications have to be taken into account:

- Wood quality: ISPM 15: free of bark, free of insect infestation, without massive fungal infestation.
- Wood treatment: ISPM 15: heat treatment (HT) with a core temperature of 56°C for min. 30 minutes or methyl bromide fumigation (MB).
- Labelling: ISPM 15: IPPC-logo, country code, treatment agent or manufacturer code, abbreviations according to the approved measures used (HT or MB) and DB for debarked.

### 4 Shipping guidelines

#### 4.1 Labelling and accompanying documents

Attention has to be paid to the following labelling standards, when delivering goods to one of the locations of AVL List GmbH

- **Product:**
  - Supplier material number
  - AVL material number
  - Serial number in text and barcode (EAN-type 128)
  - Batch number in text and barcode (EAN-type 128)

- **Electronic assemblies:**
### Standard labelling:

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Sticker(^*) or written manually</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rev. level</td>
<td>First revision number has to be in the copper of the PCB</td>
</tr>
<tr>
<td>Material number</td>
<td>Sticker(^*) or written manually</td>
</tr>
<tr>
<td>Serial number</td>
<td>Sticker(^*) or written manually</td>
</tr>
<tr>
<td>AVL-logo</td>
<td>In the copper(^*) of the PCBs or in the silk print</td>
</tr>
<tr>
<td>Inspection status</td>
<td>Inspection stamp, inspection labelling for OK, QC, ICT etc. or attached inspection protocol</td>
</tr>
<tr>
<td>Manufacturing date</td>
<td>In the copper(^*), silk print, sticker or written manually</td>
</tr>
</tbody>
</table>

### Extended labelling:

| Manufacturer's label | e.g. supplier number or manufacturer trademark |
| Handling-note        | e.g. C-MOS notification as sticker or in the silk print |
|                      | \(^*\) preferred |

### c. Product packaging:

- One packing unit for each order item
- Supplier material number
- AVL material number
- AVL purchase order number and items
- Quantity and unit of quantity
- Serial number in text and barcode (EAN-type 128)
- Batch number in text and barcode (EAN-type 128)

**Exception:** Packaging of PCBs

Example for usage of barcode and text on product packaging:

<table>
<thead>
<tr>
<th>Supplier material number:</th>
<th>123456</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVL material number:</td>
<td>XY1234</td>
</tr>
<tr>
<td>AVL purchase order number:</td>
<td>3110022</td>
</tr>
<tr>
<td>AVL purchase item:</td>
<td>0010</td>
</tr>
<tr>
<td>Quantity:</td>
<td>1200</td>
</tr>
<tr>
<td>Unit of quantity:</td>
<td>Piece</td>
</tr>
<tr>
<td>Serial number:</td>
<td>987654321</td>
</tr>
<tr>
<td>Batch number:</td>
<td>2468</td>
</tr>
</tbody>
</table>

### d. Transport packaging:

The delivery note has to be attached visibly in a delivery note pocket outside onto the transport packaging. For each purchase order a delivery note, stating all purchased items, must be included.

**Delivery note data:**
- Delivery note number (if possible, also as a barcode)
- Delivery date (if possible, also as a barcode)
Supplier address (name, postal code and city)
Vendor number
AVL purchase order number and items
AVL material number
Quantity and unit of quantity

e. **Material sets:**
Material set orders (AVL material number contains several component parts) have to be packed in sets. The exact definition will be included in each purchase order.

f. **Packing list:**
If the purchase order (delivery) contains several packages, the packing list has to be enclosed to each package.

Data on the packing list:
- Package number
- Purchase order number and items
- AVL material number
- Quantity and unit of quantity
- Delivery date

g. **Hazardous goods:**
Hazardous goods have to be packed and labelled based on relevant rules, regulations and legislation.

5 **Assumption of costs**
Shipping materials and packaging will be accepted only if they are in perfect condition. AVL reserves the right to refuse and/or return shipments if they do not comply with our valid agreement. The resulting costs (e.g. for storage, repacking, disposal, higher investigation efforts in case of unavailable order or material data) will be charged to the supplier.

6 **Transport damage**
The quality of each disposable packaging is to be chosen in such a way that goods are sufficiently protected against damage during transport. If packaging gets damaged during transportation and damages of the goods are also possible, AVL will not accept delivery and return the goods at the supplier’s expense.

7 **Delivery times**
Time for acceptance of incoming goods:
- Monday to Thursday: 06:30 am – 03:30 pm
- Friday: 06:30 am – 11:00 am

8 **Contact**
Should you have any questions in connection with the packing and delivery regulation, please contact:
Internal notice:
This document replaces the AVL regulations “FB-MES-006-002-SPI_R01 Verpackungsvorschrift, Packing Regulation” and “411507_FB Bar code marking for vendors, 109095_Barcodekennzeichnung für Lieferanten”.

Ing. Norbert Maier
Incoming & Central Logistics Graz
E-Mail: norbert.maier@avl.com
Telefon: +43 316 787-2318

AVL List GmbH
Hans-List-Platz 1
A-8020 Graz