



**ascorium**  
I N D U S T R I E S

# Supplier Packaging Guideline

**Ascorium  
Europe**



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<b>Version</b>	01
<b>Date</b>	January 2024
<b>Owner</b>	Daniel JANDA, Logistics Engineering Coordinator

# 1 Supplier Packaging Guideline

## 1.1 Business and objectives

At different locations Ascorium develops, produces, and delivers interior trim parts for various car models. The interior trim parts produced by Ascorium normally cover 100% of the total of customer's requirements. This commits Ascorium to provide the customer with the correct quantity of parts at any time and at the time and of the quality agreed.

Purchased parts take an important impact for Ascorium's product quality, productivity, and delivery performance.

## 1.2 Purpose

The guideline is effective for components that the Suppliers deliver to Ascorium plants in Europe. These standards are necessary to ensure general accountability for quality and maintain consistently high-quality performance and continuous cost reduction. The contents are guidelines to be used by all parties involved in the packaging process and describe Ascorium's packaging requirements concerning quality, safety, handling and labelling.

## 1.3 Document update

When the guideline is revised, the Suppliers will receive the latest version from Ascorium purchasing department. When Ascorium refers to the Supplier Packaging Guideline, it is always the latest version.

## 1.4 Confidentiality

The Supplier Packaging Guideline is confidential document and forwarding or reproduction without prior agreement is strictly prohibited!

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## 2 Supplier responsibility

- It is the suppliers' responsibility to ensure that the goods are packed in such a way that they arrive in good condition. Supplier is responsible for product quality from the manufacturing source to the point of use.
- Suppliers must quote all business in compliance with these guidelines and include a breakdown of packaging cost elements identified by Ascorium.
- To ensure worker safety and loss prevention, packaging design shall consider all human interaction. For parts considered for a small container manageable by one person, 15 kg is the recommended limit. For parts packed in larger containers that require material handling equipment, drop doors may be required. Drop door height shall be approximately 50% wall height.
- Packaging design must protect the product, be ergonomic for users, and meet lowest total cost requirements particularly with regard to efficient transport utilization and lean management demands (e.g., Line side feeding, batch sizes).
- The supplier is responsible for ensuring that correct labelling is provided for all packaging in line with this manual and the herein mentioned automotive standards.
- As part of the Ascorium process of continuous improvement, alterations to the approved packaging may be requested by Ascorium. Suppliers shall respond quickly to such requests and manage packaging changes immediately.
- Though returnable packaging is preferred, some instances may require one-way packaging. In these cases, all expendable packaging must be readily recyclable or economically and legally disposed of in accordance with local legislation. Ascorium also encourages the use of recycled content in its packaging materials.

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## 3 Packaging development process

### 3.1 Packaging – General rule

The Supplier has to assure the availability of utilizable and storable packaging. The responsibility for maintenance and cleaning is incumbent to the owner. The Supplier is requested to check each packaging item at goods receipt and during dispatch. Damages and needed repairments have to be announced to the owner immediately. The owner will proceed repairments or replacements. In every case the Supplier is liable for quality defects of insufficient, wet, or dirty packaging.

The Supplier is requested to show the investments and to offer a cost allocation for the packaging investment within the logistics cost price per part.

Generally packaging has to be returnable. If one-way packaging will be used per exception the Supplier has to take it back or Ascorium will dispose it on Supplier's account.

### 3.2 Packaging concept

The Supplier is in charge of the packaging development, but he has to collaborate closely with Ascorium. He has to present a packaging sample. After some successful trials Ascorium will give the approval. Together with the quotation the Supplier transmits packaging proposals and documents the proposal with a Packaging Instructions.

The packaging has to be designed to meet the following requirements.

- Part supply and handling without any damaging or quality defects
- Ergonomic deposit and removal (no quality defects)
- Easy handling with industrial trucks from all sides
- Efficient usage of room in the packaging unit
- Easy labelling of each single package and of the packaging unit
- Stackability
- Keep standard dimensions
- Transportation lock
- Use recyclable materials
- Max packaging unit gross weight = 15 kgs
- Life over project duration
- One-way packaging (e.g., cardboard)
  - Limited usage of one-way packaging
  - Cardboard with detachable lid

These requirements can be extended in case of special packaging e.g., if fast access, automatic removal or robot handling is required.

### 3.3 Packaging concept agreement

During the Request For Quotation process (RFQ) Ascorium will propose to the Supplier the packaging concept to be considered for the quotation through the Packaging Instructions, including the estimated packaging fleet needed for series production. Supplier is entitled to propose any improvement / alternative to the concept proposed based on its expertise as provider of the components to quote.

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### 3.4 Packaging prototype

After concept agreement, the Supplier must order a packaging prototype as agreed during the RFQ phase and present it to Ascorium for validation. All the parts and transports needed in order to get the packaging fully validated must be considered by the Supplier in the cost provided at the RFQ phase. No additional order will be placed by Ascorium for packaging validation purposes after Supplier nomination.

### 3.5 Weight restrictions

Without specific local regulation, the Ascorium standard maximum weight of small load full packaging is 15 kg. In case of deviations required based on ergonomics guidelines and standards, it will be specified by Ascorium on the Packaging Instructions.

### 3.6 Pre-series packaging

Once the packaging prototype is validated, the Packaging Instructions will be updated (if applicable) and released. Supplier will order a packaging for pre-series volume.

### 3.7 Series packaging

During pre-series run packaging will be used in series conditions. If no issue is reported, series packaging order will have to be placed by the Supplier in order to have the full packaging fleet in place early enough before SOP to support all shipments with the final agreed packaging.

### 3.8 Investment rules

As general rule, the Supplier is responsible to invest in the new packaging required. Packaging cost will be amortized in piece price.

In any case, investment responsibility will be defined in Packaging Instructions during RFQ.

### 3.9 Back-up packaging

#### 3.9.1 Definition

The back-up packaging must be a copy of returnable packaging in dimensions, density and stackability. Only boxes with detachable lid are allowed for easy handling.

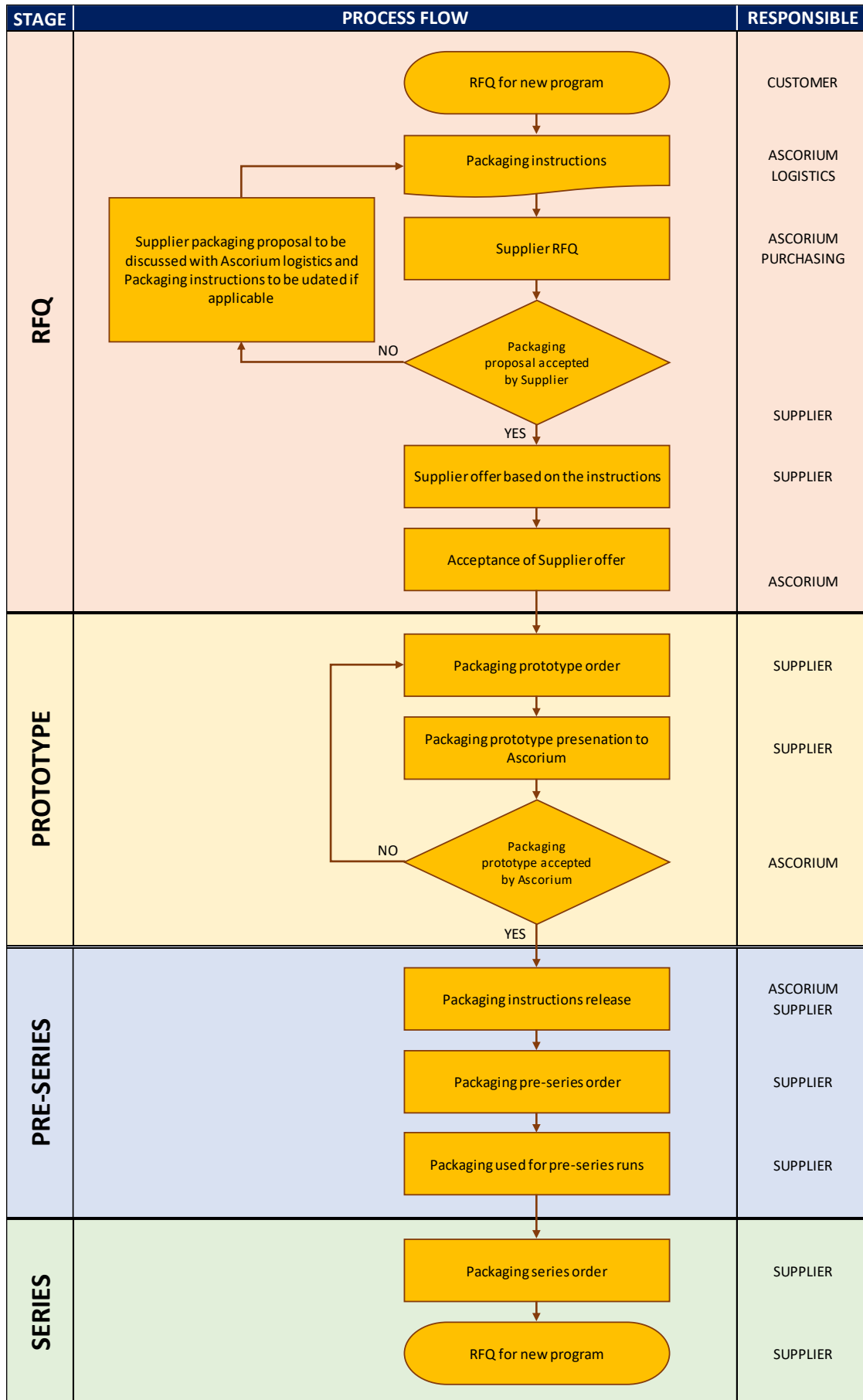
#### 3.9.2 Usage

Back-up packaging will be used in the event of non-availability of returnable packaging (pre-series deliveries, stock pilings, emergencies). The usage of back-up packaging must be communicated by the Supplier and authorized by Ascorium receiving plant logistics before the goods are shipped. If necessary, problem-solving methodologies will be applied in order to identify and eliminate the root cause driving to back-up packaging usage.

#### 3.9.3 Anticipation

It is the responsibility of the Supplier to alert Ascorium in case of returnable packaging shortage. The Supplier orders back-up packaging after validation of Ascorium.

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## 4 Packaging Instructions

Packaging Instructions is a part of Supplier Logistics Agreement and is used as agreement between Ascorium and Supplier about packaging definition.

Packaging Instructions have to be proposed in RFQ phase and finally validated in pre-series phase (form QF-0301l-INT-IS\_Packaging Instructions).

Changes to part number, quantities, packaging materials or dimensions require a re-submittal of the Packaging Instructions.

### QF-0301l-INT-IS\_Packaging Instructions

PACKAGING INSTRUCTIONS																																																														
<b>PART INFO</b>		<b>SUPPLIER INFO</b>		<b>HEADER</b>																																																										
Ascorium PN: _____ PN description: _____ Ascorium plant: _____ Daily volume: _____ Unit: pcs		Supplier name: _____ Address: _____ Supplier code: _____ SOP: _____		Document Nr.: _____ Date: _____ Region: EU																																																										
<b>PACKAGING DATA</b>		<b>PACKAGING DETAILS</b>																																																												
Reusable packaging: _____ Label stadard: VDA 4902 MOQ (pcs): _____ Packaging loop: _____ Total quantity of HU: _____ Delivery frequency: _____ Full (per week): _____ Empty (per week): _____		<table border="1"> <thead> <tr> <th></th> <th>Packaging Unit (PU)</th> <th>Handling Unit (HU)</th> <th>Pallet for HU</th> <th>Cover for HU</th> <th>Dunnage 1</th> <th>Dunnage 2</th> </tr> </thead> <tbody> <tr> <td>Description</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Length (mm)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Width (mm)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Height (mm)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TARA (kgs)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Gross weight (kgs)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Density (pcs)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						Packaging Unit (PU)	Handling Unit (HU)	Pallet for HU	Cover for HU	Dunnage 1	Dunnage 2	Description							Length (mm)							Width (mm)							Height (mm)							TARA (kgs)							Gross weight (kgs)							Density (pcs)						
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## 5 Packaging standards

### 5.1 General definition

#### 5.1.1 Returnable packaging

From an economic point of view, returnable packaging is preferred and must be able to use for multiple return trips.

General rule is to use returnable packaging up to one-way distance 1500 kms but exception can be applied and confirmed during packaging development process.

#### Design requirements:

- Possibility to be stacked
- Preferably collapsible
- Durability and washability
- Lightweight and strong
- Possibility of easy filling / emptying
- Possibility of easy assembly / disassembly

#### 5.1.2 One-way packaging

When application of returnable packaging is not possible or reasonable, one-way packaging can be chosen.

It is assumed that this kind of packaging will be used for only one delivery.

#### Design requirements:

- Possibility to be stacked
- Possibility of easy filling / emptying
- Protection against corrosion and any damage
- Cardboard with detachable lid

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### 5.1.3 Packaging unit

A packaging unit is the smallest possible order quantity.

#### Examples of packaging unit:

- Returnable small units
  - KLT, Euro box, EPP, Special box, etc...



- Returnable large units
  - Plastic big boxes, Iron containers, etc...
    - Always with trap door with height of approx. 50% of total wall height



- One-way units
  - Cardboard boxes with detachable lid



### 5.1.4 Handling unit

A handling unit consists of several packaging units on one pallet or in case of large packaging, packaging unit = handling unit (e.g., iron container).

### 5.1.5 Pallet

Type of pallet to be used:

- Plastic for returnable packaging units
- Solid wooden for one-way packaging units
  - Non-EU pallets must be fumigated (IPPC) – see chapter 5.4.



Prohibited type of pallet:

- Cardboard
- Plywood



## 5.2 Dimensions and weight

### 5.2.1 Packaging unit

#### European (continental) Suppliers:

- Dimensions:
  - A packaging unit must be as small as possible to secure low level of minimum order quantity.
  - Small units should correspond to the size of a EUR pallet with a floor plan of 1200 x 800 mm (exceptions only with the consent of Ascorium).
  
- Max. gross weight:
  - Small unit: 15 kgs
  - Large unit: 500 kgs

#### Overseas (intercontinental) Suppliers:

ISO-Modular Carton (IMC) program is a corrugated box footprint strategy designed to "module" standard ISO-Sea Containers. This strategy is required to maximize freight and quality while eliminating non-added value handling and crating. Packaging is based around a unit load footprint size of 980 x 1140 x 1100 mm.

- Dimensions and max. gross weight:

IMC box number	External dimensions (mm)			Max. gross weight per box (kg)	Boxes per layer (qty)	Max. layers per pallet (qty)	Max. boxes per pallet (qty)	Max. gross weight per pallet (kg)
	Length	Width	Height					
IMC030	280	240	120	15	16	8	128	500
IMC040	280	240	240	15	16	4	64	500
IMC050	480	280	120	15	8	8	64	500
IMC060	480	280	240	15	8	4	32	500
IMC070	560	240	120	15	8	8	64	500
IMC080	560	240	240	15	8	4	32	500
IMC090	560	480	120	15	4	8	32	500
IMC100	560	480	240	15	4	4	16	500
IMC110	560	480	480	15	4	2	8	500
IMC120	960	560	120	15	2	8	16	500
IMC130	960	560	240	15	2	4	8	500
IMC140	960	560	480	15	2	2	4	500
IMC150	1120	480	120	15	2	8	16	500
IMC160	1120	480	240	15	2	4	8	500
IMC170	1120	480	480	15	2	2	4	500
IMC190	1120	960	480	250	1	2	2	500
IMC215	1120	960	960	500	1	1	1	500

## 5.2.2 Handling unit

### European (continental) Suppliers:

- Dimensions:

A handling unit must be designed to utilize the most usable European trailers (MEGA or JUMBO).

- Small units on pallet:

- Length x Width: 1200 x 800 mm
- Max height: 1000 mm

- Large units:

- Length x Width: to fit footprint of EU trailers
- Max height: 1000 mm

- Max. gross weight: 500 kgs

### Overseas (intercontinental) Suppliers:

- Dimensions:

- Length x Width: 1140 x 980 mm
- Max height: 1100 mm

- Max. gross weight: 500 kgs

## 5.2.3 Pallet

### European (continental) Suppliers:

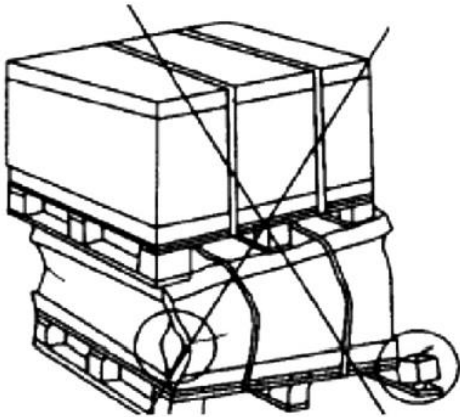
- Dimensions: 1200 x 800 x max. 150 mm

### Overseas (intercontinental) Suppliers:

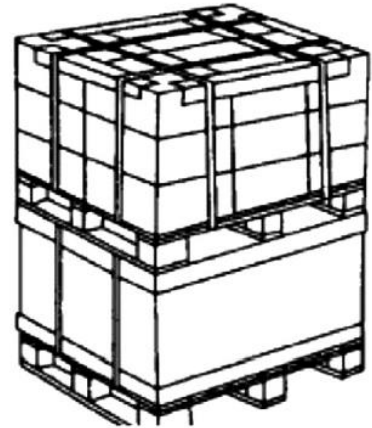
- Dimensions: 1140 x 980 x max. 140 mm

### 5.3 Stacking and strapping

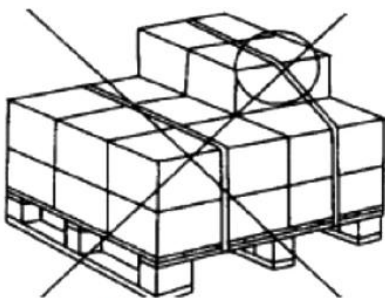
Supplier will guarantee the stability and stackability of the packaging and handling units. Incomplete layers shall be avoided. Edge protection and strapping shall be used if it is required by the security of the handling unit or fixed in the packaging instruction.



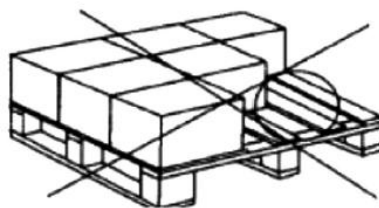
**Wrong**



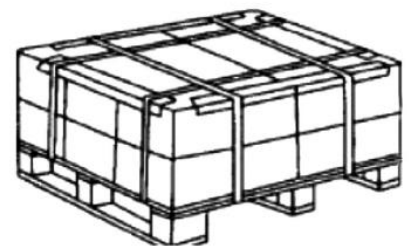
**Correct**



**Wrong**



**Wrong**



**Correct**

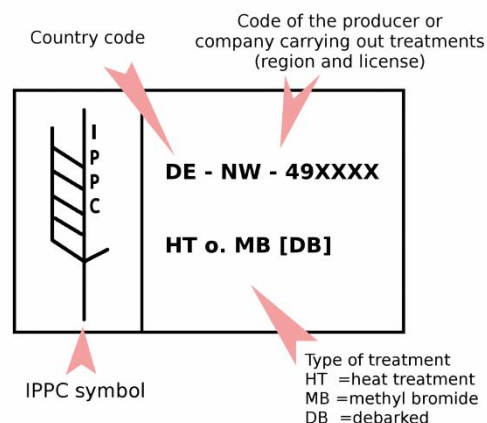
## 5.4 Import regulations for packaging made of wood – IPPC standard

Many countries have put quarantine regulations in place to protect their native forests from the introduction of wood pests. In order to prevent the proliferation of differing import regulations, the International Plant Protection Convention (IPPC) Secretariat, part of the Food and Agriculture Organization (FAO) of the United Nations, has issued ISPM 15 (International Standards for Phytosanitary Measures) "Guidelines for Regulating Wood Packaging Material in International Trade".

### The key features of ISPM 15:

- ISPM 15 applies only to solid wood, with derived timber products and solid wood thinner than 6 mm (according to the EU Harmonized System) being exempt.
- Treatment of the packaging by approved measures, which include heat treatment (HT) to a core temperature of 56°C for at least 30 minutes, for example by kiln drying (KD), provided that the above-stated specifications are achieved. Chemical pressure impregnation (CPI) is approved only if the required HT specifications are achieved, which is not generally the case. Another measure is fumigation with methyl bromide (MB) depending on concentration, duration and temperature.
- Permanent and legible marking of the packaging must be provided on two opposite sides of the package. The mark is composed of the ISO 3166 two letter country code (e.g., DE for Germany), the regional identifier (e.g., NW for North Rhine-Westphalia) and a registration number issued by the regional phytosanitary authority to the packaging container manufacturer, the packer or the consignor (unique number beginning with 49). The treatment method is denoted by the abbreviation HT for heat treatment or MB for fumigation with methyl bromide. The letters DB may also be included where debarking is required.

### Example of IPPC:



In order to meet the requirements of the IPPC, the importing supplier must comply with the latest revision of the ISPM 15. Every packaging design for Ascorium shall be made in accordance with this directive.

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## 5.5 Recycling and environmental requirements

Packaging shall be planned to take into account basic economic and ecological concerns. Environmental legislation concerning waste focuses on the following principles, which reflect ecological priorities:

- **Avoidance** to be limited to the absolute minimum.
- **Reduction** of diversity. The supplier should use as few as possible different types of one-way packaging material in order to reduce the recycle handling.
- **Recycling** – Environmental recycling must be possible for both returnable and one-way packaging.

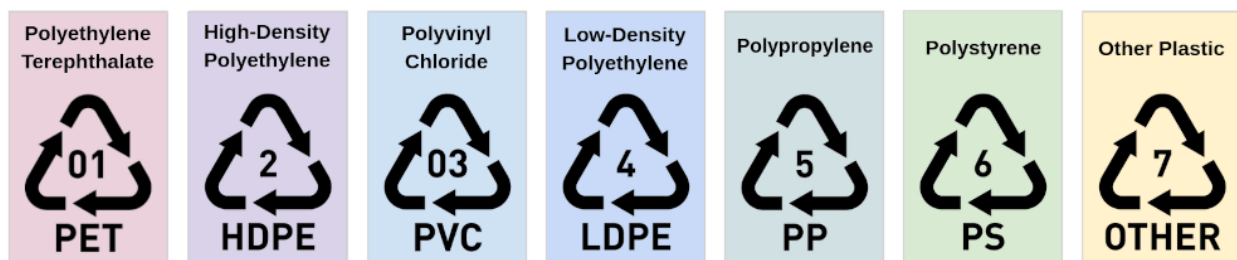
The European Union is seeking to harmonize national measures concerning the management of packaging and packaging waste to provide a high level of environmental protection and ensure the functioning of the internal market.

In order to meet the requirements of environmental protection, the supplier must comply with the latest revision of European Communities Directive 94/62/EC1. Every packaging design for Ascorium shall be made in accordance with this directive. To avoid unnecessary environmental pollution, only environmentally compatible materials are permitted.

### Environmental responsibility especially in the case of plastic packaging:

To facilitate the recycling of a product, its identification must be known. Therefore, all plastics (expendable & one-way) shall be marked with the material identification symbol. There are numerous types of plastics used for automotive packaging, which require a simple method of identification. Ascorium requires the SPI (Society of Plastics Industry) coding. The SPI code chart is shown below.

### Plastics Identification codes devised by the Society of Plastics Industry (SPI):



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



## 6 Labelling

### 6.1 Part identification and labelling

Each shipped packaging unit has to be identified with a label (VDA standard 4902). The completed label has to be fixed in a way as it is viewable also in case of multi-stacking and shipment of more than one unit. Labels have to be fixed always at the same position. In every case label must be removable without any residue. The Supplier assures each packaging will be cleaned from all old labels.

The required part identification is related to the supply system and/or special QA issues. In case of automatic identification is installed data description by barcodes can be necessary.

Shipping of goods with limited storability or durability requires terms to be mentioned at the label. Maybe special regulations have to be considered.

(1) Receiver <b>Ascorium Mlada Boleslav s.r.o.</b> <b>Plazy 115</b> <b>Mlada Boleslav, Czech republic</b>		(2) Dock-Gate <b>Ascorium Mlada Boleslav</b>	
(3) Advice Note No. (N) <b>2581752</b> 		(4) Supplier Address <b>City, Country, ZIP</b>	
		(5) Net Weight <b>0,05 kg</b>	(6) Gross Weight <b>8 kg</b>
		(7) No. of Boxes <b>1</b>	
(8) Part No. (P) <b>765-HGD89-123</b>  			
(9) Quantity (Q) <b>140</b> 		(10) Description <b>Substrate</b>	
		(11.1) Supplier Part No. (30S) <b>0-123B10-0</b> 	
(12) Supplier No. (V) <b>4638141</b> 		(11.2) Package Reference No. (B)	
(15) Serial No. (S)		(13) Date <b>D 230212</b>	(14) Engr. Change
		(16) Batch No. (H)	
(17) Supplier		Warenanhänger VDA 4902	
		14.52.32 22.02.2023	

(1) Receiver <b>Ascorium Mlada Boleslav s.r.o.</b> <b>Plazy 115</b> <b>Mlada Boleslav, Czech republic</b>		(2) Dock-Gate <b>Ascorium Mlada Boleslav</b>		(3) Advice Note No. (N) <b>2581752</b> 	
(8) Part No. (P) <b>765-HGD89-123</b>  					
(9) Quantity (Q) <b>140</b> 			(10) Description <b>Substrate</b>		
			(11.1) Supplier Part No. (30S) <b>0-123B10-0</b> 		
(12) Supplier No. (V) <b>4638141</b> 			(13) Date <b>D 230212</b>		
(15) Serial No. (S)			(14) Engr. Change		
			(16) Batch No. (H)		

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## 7 Returnable packaging management

### 7.1 Empties management

The Supplier has to assure the availability of empty packaging during ramp-up and series reduction phase. In case of disruptions the Supplier has to deliver nevertheless according to the released quantities and dates. Required substitute packaging has to be planned and agreed with Ascorium already in the project phase.

Ascorium will keep an account for all returnable packaging. All receipt and shipping data will be recorded. The account will be balanced frequently. At least once a year an inventory has to be proceed.

Returnable packaging can not have to be used for other purpose that was agreed (e.g., can not be used for safety stock above agreed level, intermediate storage etc.).

The Supplier must ensure packaging cleanliness before shipment.

Both the Supplier and Ascorium report any damaged packaging as soon as detected.

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