Supplier Logistic Manual

Supplier Logistic terms and conditions

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1. Abbreviations

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AIAG	Automotive Industry Action Group
ASN	Advanced Shipping Notification
CMR	Convention Relative au Contrat de Transport International de Marchandises par Route
CN	China
DDP	Delivery Duty Paid (see Incoterms)
EDI	Electronic Data Interchange
EDIFACT	Electronic Data Interchange For Administration, Commerce & Transport
ESD	Electro Static Discharge
EU	European Union
FCA	Free Carrier (see Incoterms)
FMEA	A failure modes and effects analysis (FMEA) is a procedure for analysis of potential failure modes within a system for classification by severity or determination of the effect of failures on the system
GT&C's	General Terms and Conditions of Purchase of Inalfa Roof Systems Group B.V.
HSC	Half Slotted Containers
Inalfa	The entity which issues the Purchase Contract within Inalfa Roof Systems Group B.V. and all companies affiliated with Inalfa Roof Systems Group B.V.
Incoterms	Incoterms, published by the International Chamber of Commerce, to the version current at the effective date of the Purchase Contract
ISO / TS 16949	Defines the quality management system requirements for the design and development, production and, when relevant, installation and service of automotive-related products
IPS	Inalfa's Packaging Standard)
KLT	Kleinladungsträger (small unit packaging)
KOR	Kick Off Review (Meeting)
KR	Korea
Lead time	A lead time is the latency between the initiation and execution of a supply process
MMOG /LE	Material Management Operations Guideline / Logistics Evaluation
MRP	Material Requirements Planning
MSDS	Material Safety Data Sheet
MPS	Master Production Schedule
MPW	Maximum per Week for production volume
MRP	Material Requirements Planning
NA	North America
NAD	Name and address (in edifact)
NCR	Non Conformance Report
ODETTE	Organization for Data Exchange by Tele-Transmission in Europe
PDF	Packaging Data Form
PoD	Proof of Delivery
PPAP	Production Part Approval Process
Purchase Contract	Any purchase order or other agreement between Inalfa and Supplier in the performance of which products are (to be) supplied to Inalfa
Purchase release	Inalfa will send purchase releases (EDI or Supply Web or manual) to Supplier. These releases contain a firm plan and a forecast.
SMS	Supplier Management System

SOP	Start Of Production of the applicable program/project at Inalfa
SU	Supplier (number)
Supply Web	Supplier portal for communicating Purchase schedules. Next to EDI this is one of the communication tools to suppliers
Supplier	The person or legal entity which enters or intends to enter into a contract with Inalfa to deliver products to Inalfa in performance of a Purchase Contract
SQD	Supplier Quality Development
The Raw Period	The period that Supplier is allowed to have raw material in stock against Inalfa EDI schedules
The Fab Period	The period that Supplier is allowed to have manufactured parts in stock against Inalfa EDI schedules
WHS	Warehouse
IP	Work in Progress (Inventory on the shop floor)

2. Introduction

Logistic procedures and processes are becoming increasingly important in relationships between Inalfa and its suppliers. This Supplier Logistic Manual aims to standardize and continuously improve procurement processes involving Inalfa and its suppliers. This Supplier Logistic Manual is also intended as a work of reference which suppliers can use to clarify any difficulties and questions which may arise. This manual is part of the Purchase Contract.
All companies within Inalfa Roof Systems Group B.V. are entitled to apply the regulations set out in this Supplier Logistic Manual in its supplier logistics processes with the Supplier, or its respectively responsible group companies, from whom Inalfa purchase products.
The Supplier is responsible for the quality of its products and for compliance with the requirements and rules set out in this Supplier Logistic Manual.
The Supplier must meet the logistics requirements stated in this Supplier Logistic Manual to ensure security of supply.
The requirements are minimum standards which are binding for all suppliers and must be fulfilled by the start of delivery.
The Supplier has to provide detailed logistics process description and training evidence of logistics people before release of the Supplier during the Logistics Process Audit.
Compliance with the content is essential and will impact future sourcing decisions. It is therefore recommended that suppliers should inform all responsible members of their staff of the contents of this manual.

Basic logistics process and information flow can be identified as followed.

Figure 1 - Logistics process and information flow

3. Communication

3.1. Communication between the Supplier and Inalfa

A functioning collaborative relationship is dependent on communication between the Supplier and Inalfa. Essential factors in the process: timely and active information with regard to any changes in the circumstances affecting the supply relationship (agreements, contracts, processes, etc.) as well as adherence to, and monitoring of, agreements in place.
English spoken & written language is the expected standard.
In order to complete the Inalfa Supplier Logistic Database where all Supplier Details are being maintained, the new Supplier is requested to fill out the Appendix 2 'Supplier Contact List'. The contact list needs to be filled out by the Supplier and returned to Inalfa, at the quotation or introduction of one or more Inalfa purchased parts.
In case of emergency at Inalfa (e.g. reject, production stops) a mobile phone number from the Supplier needs to be available at Inalfa. The Supplier should fill in the emergency contact in Appendix 2.

3.2. Contacts

The Supplier is to designate the contacts responsible for logistics (primary contact's name, substitutes name, and line manager(s) name(s), including e-mail addresses and phone numbers included for each). The Supplier shall ensure that the contact possesses the requisite subject competence.
Languages used in communications:

- Language of the country of the respective Inalfa manufacturing site;
- English (as the standard language for use in the international communication).

3.3. Availability of contacts

The contacts designated by the Supplier (or their substitutes) must be available at minimum workdays from 7 a.m. to 5 p.m. (refers to the Supplier's local time). Outside these working hours the Supplier must have emergency phone communication in place and these phone numbers are to be provided to Inalfa. The Supplier's back-up communications network for Inalfa must be manned by competent employees and communicated to Inalfa.
The Supplier is also required to provide a logistics organizational chart, including a description of responsibilities.

3.4. Decision making authority for special measures

The Supplier must clearly specify each contact's scope of decision-making authority related to implementing special measures (e.g. special transports, etc.).
The Supplier must provide a written description by email, of the decision making process used to initiate special measures.

The Supplier must verify implementation of these measures at all times and communicate them to Inalfa.

4. Material planning

4.1. General rules

The Supplier must have stock of raw materials in sufficient quantities to meet Inalfa's manufacturing needs, taking into consideration the replacement Lead Time.
The purchase obligation is standard, unless otherwise agreed in Purchase Contract:

- Raw Material – 8 weeks (12 weeks for oversea suppliers);
- Fabricated Material – 4 weeks.

In order to ensure a smooth production process and supply to the Inalfa manufacturing site, the Supplier must use the FMEA method ('failure mode and effects analysis') to analyze all possible process risks. The Supplier has to designate an emergency team (Emergency Contact) to handle emergency situations. The emergency process has to be approved during the Logistics Process Audit. The Supplier needs to deliver parts within 24h from the start of the emergency process.

4.2. Purchase Schedules Release

Purchase Schedules are updated automatically and issued by the Inalfa Material Planning department with a minimum of one (1) schedule per week. The Purchase Schedules inform the Supplier of Inalfa's actual and estimated future demand for supplier's products. The planning horizon typically covers a minimum period of six (6) months. New Purchase Schedules supersede preceding Purchase Schedules. Dates and periods on the Purchase Schedules are shipping- or delivery dates to Inalfa, depending on the agreed Delivery Terms, and must be respected at all times. DDP terms refer to Delivery Dates & FCA terms refer to Shipping Dates. Exceptions may be mutually agreed upon between the Inalfa Material Planning department and the Supplier prior to the delivery, and must be confirmed with a new Purchase Schedule.

4.3. Delivery Conditions

In any case, the delivery of products must be made strictly in compliance with the Purchase Contract and Inalfa's delivery schedules as issued by Inalfa. At such scheduled delivery date and time, the Supplier must deliver the products, hand over any documents relating to them and transfer clear title and full possession of the products in compliance with the Purchase Contract. The Supplier warrants that the products delivered are free from any right, lien or claim of a third party. Unless otherwise agreed in writing, Inalfa is not obligated to accept partial deliveries.

Each shipment of products must include packing slips, bills of landing, and invoices bearing the applicable Purchase Order number and the location of the plant to which the

products are to be shipped. The Supplier undertakes to conclude and maintain sufficient insurance coverage in respect to the carriage of the products.

Delivery conditions (conform the Incoterms) are agreed in the Purchase Contract. Inalfa applies two standard delivery terms:

- Free Carrier ('FCA');
- Delivered Duty Paid ('DDP').

4.3.1. FCA Delivery

In case of FCA delivery terms, Inalfa is responsible for collection at the Supplier. The Supplier is obligated to have the Inalfa products ready for pickup at the collection window date/time which is defined in the Standard Operating Procedures (see 'Freight Forwarder Operating Procedure Checklist' in **Appendix 4**) and taking into account the defined transit times according routing guidelines Inalfa. The Supplier has to inform Inalfa's designated carrier, no fewer than 2 days before 12:00 the second day, prior to shipping, of the size of the shipment (including the number of containers, the quantity of the packaging, the weight of the shipment, the cubic size of the shipment (length, width, height), and the special handling instructions regarding the shipment) of the products which are being prepared for shipment and the time and date available for pick up – to optimize transportation and it costs. The Supplier must send forenamed information by e-mail to his/her local Inalfa counterpart prior to the reception date. The Supplier must send Inalfa an ASN-message within one (1) hour after products are loaded with the carrier. The ASN will be measured on time and completeness, and is part of the delivery performance of the Supplier. Inalfa expects the Supplier to be compliant with a 100% ASN-performance.

If supplier's products are not ready for shipping to Inalfa on the designated shipping date and time, the carrier may (in consultation with Inalfa) depart the Supplier without the shipment. Inalfa reserves the right to charge the Supplier for the unused transportation space, notwithstanding all other rights of Inalfa listed in the Purchase Contract or the law. Inalfa in no way waives its right to receive products on the measured delivery date set forth in the Purchase Schedule. Consequently, the Supplier is responsible for all costs and expenses incurred to deliver the products as required by the Purchase Schedule including expedited handling and transportation fees.

4.3.2. DDP Delivery

In case of delivery terms DDP, the Supplier is obligated to deliver the products on the delivery date and time to Inalfa at the named place. The Supplier is obliged to arrange all activities concerning the delivery, among which custom clearance and transportation with covering all risks and costs (e.g. freight, insurance, local taxes, custom clearance and duties), unless otherwise specifically stated in the Purchase Contract and specifically stated on the transportation documents. The Supplier must sent Inalfa an ASN-message within one (1) hour after products are loaded with the carrier. In case of no or a wrong ASN-message or in case of no or wrong labels, this

will be counted as a non-performance by the Supplier. Costs related to this non-performance will be charged to the Supplier.

In any case, the Supplier shall notify Inalfa in writing as soon as it becomes apparent that there is a risk the Supplier will not be able to deliver the products in conformity with the Purchase Contract. Late delivery will be prima facie evidence of the default of the Supplier. Reference is made to the GT&C's of Inalfa for the financial penalties regarding a delay in the delivery of products.

4.4. Delivery Date-Ship Date

DDP suppliers: The delivery date shown on the EDI schedules is the date on which the products must arrive at and be placed at the disposal of Inalfa. Time windows as indicated by Inalfa, unless otherwise agreed upon.
FCA suppliers: The ship date shown on the EDI schedules is the date on which the products must be ready for pick up at the Supplier. Time windows as indicated by Inalfa, unless otherwise agreed upon.

4.5. Overdue Backlog (late delivery)

In case of a supplier overdue backlog (whatever the cause), the Supplier must immediately contact the Inalfa material planning department pro-actively and prepare a recovery plan in agreement with the Inalfa Material Planning department. The Supplier is responsible for all costs incurred to deliver the products in overdue backlog. A supplier overdue backlog must not lead to a production stoppage at Inalfa. The Supplier is liable for all Inalfa charges, costs, expenditures, and expenses, including any such charges or expenditure claims of inalfa's customers related to supplier's failure to deliver products as set forth in Inalfa's Purchase Orders.

4.6. Shipping- & Delivery Performance

The Shipping- & Delivery performance is measured by the following criteria:

1. Delivery/Shipping date & time;
2. Delivered/Shipped quantity against requirements shown in latest purchase release;
3. Accuracy & timeliness of ASN (within one (1) hour of shipment);
4. Packaging in full compliance with a solution agreed upon in the Packing Approval Form (see 'Packaging Data Form', **Appendix 3**);
5. Labeling (per Inalfa guidelines).

A delivery/shipping performance is measured by the required quantity and per individual part on the planned delivery/shipping date and the planned quantity as required in the latest purchase release. The measured delivery/shipping date is the

date that the products should arrive at or shipped to Inalfa. Delivery or Shipping on the incorrect date or with incorrect quantity (over or under delivery) is considered a non-delivery. A non-delivery will be taken into account in the delivery performance in the SMS rating.

In case of a non-delivery for any reason, including incorrect quantity, missed delivery date or time window, damaged products and ASN or label issues, the Supplier will be informed by means of a logistic-NCR. An NCR will be sent out to the Supplier and the Supplier must respond via a Supplier 8D-report no fewer than 48 hours after receipt of the corresponding logistic-NCR.

4.7. Schedule Confirmation

The Supplier shall, within 24 hours after receipt of Purchase Schedules from the Inalfa Material Planning department, review the schedules and inform the Inalfa Material Planning department in writing, of any expected delay in delivery time and/or shortages in quantity. If no written report is received by the Inalfa Material Planning department, the Supplier is deemed to have committed itself to the Inalfa Purchase Schedules.

4.8. Capacity

At quotation, and on an annual basis, Inalfa and the Supplier shall coordinate supplier's supply of its products needed to satisfy all of Inalfa manufacturing needs taking into consideration Inalfa's yearly nominal capacity quantity (including flex), its maximum weekly capacity and its peak capacity. This is part of the Purchase Contract. Maximum capacity is Inalfa's maximum annual capacity plus flexibility, based on maximum output of good parts and agreed saturation of the Supplier's capital equipment on tooling and equipment. The Supplier must be able to satisfy Inalfa's maximum daily capacity at all times and the maximum capacity as agreed in Inalfa Purchase Contract or latest kick off review related to that part number. The capacity information should be part of the logistics supplier checklist (see the 'Supplier checklist' in **Appendix 2**).

The maximum capacity is defined as maximum annual volume, divided by the workable weeks, multiplied by the flexibility:

$$C_{MAX} = \left(\frac{V_{AM}}{W}\right) \cdot F$$

C_{MAX} = Maximum weekly capacity.

V_{AM} = Annual maximum volume. Purchased maximum capacity, as agreed in the Purchase Contract and /or latest related Kick Off Review document.

W = Number of weeks to be calculated with. One (1) working week is to be considered maximum 5 days and 3 shifts[1].This may differ per customer of Inalfa and is agreed in the Purchase Contract and /or latest related Kick Off Review-document.

F = Capacity Flexibility to be calculated with. This may differ per customer of Inalfa and is agreed in the Purchase Contract and /or latest related Kick Off Review-document.

1) *In case production and demands exceed the defined working week, the Supplier is to contact the Inalfa Purchase Department and Logistics department immediately in writing.*

4.9. Flexibility

Flexibility can be split in two different notions:
1) Demand flexibility: flexibility related to Inalfa EDI and Supply Web schedules;
2) Capacity flexibility: flexibility related to the maximum agreed annual capacity.

4.9.1 Demand Flexibility

The Supplier's additional costs (e.g. materials, transport, personnel) incurred to satisfy maximum daily capacity will not be accepted by Inalfa. The Supplier is responsible to fulfill the Inalfa Delivery Schedules within maximum weekly capacity at all time.
Individual supplier flexibility will be agreed in the Purchase Contract.
In case of fluctuations that exceed the agreed flexibility, a mutual solution needs to be developed in cooperation between the Supplier and the Inalfa Purchasing department.

4.9.2. Capacity Flexibility

Capacity Flexibility is defined as the increase in volume the Supplier is required to accept on annual and weekly level. Depending on the flex class of a customer, which is based on the take rate, different flex levels are required. This flexibility may vary per individual part and is agreed in the Purchase Contract and /or in the latest Kick Off Review document, related to this specific part.

In line with Inalfa customer contracts the flexibility required is 15% flex on annual and monthly demand.
For temporarily peaks beyond this 15% of demand for max 6 weeks in a row, Inalfa will provide 12 weeks notification.

4.10. Rejected Parts Caused by the Supplier

Rejected parts are considered non-delivered parts. The Supplier will be informed by means of a NCR in reference of Supplier Quality Manual. Replacement parts must be delivered immediately, in mutual agreement with the Inalfa Material Planning department. Delivery quantity and lead-time needs to be agreed between the Supplier and the Inalfa Material Planning department.

The Supplier is liable for all Inalfa charges, costs, expenditures, and expenses, including any such charges or expenditure claims of Inalfa's customers related to supplier's rejected parts.

4.11. CUMs Reconciliation

All suppliers are required to review their cumulative quantities shipped on a regular and routine basis by reviewing shipment history, payable remittance, as well as through the EDI release. Inalfa recommends performing this reconciliation weekly to ensure that all shipments have been properly accounted. Failure to reconcile cumulative quantities shipped against the posted receipts may result in lost shipments or short pays. Due to routine electronic file purging, claims made to Inalfa for missing transactions, receipts, or otherwise over four months old may not be considered. Any questions regarding cumulative reconciliation should be forwarded to the appropriate Materials contact at Inalfa for an immediate resolution.

4.12. Obsolete Material

Inalfa and the Supplier will mutually determine the appropriate Raw and Fab periods based on Inalfa's sales projections. The authorizations are directly called out within the weekly material release as fab, and raw authorizations. Inalfa is not financially responsible for any material that becomes obsolete in excess of these authorizations. The Supplier has thirty (30) days after the last shipment of the product to submit a claim for obsolete material. Any claims submitted after this period of time will be disqualified.

5. Exchange of Information and Data

5.1. EDI

In general Inalfa requires communication via EDI (format EDIFACT). Electronic data Interchange requirements are in line with a long-term strategy to harmonize currently existing EDI connections and standards with all suppliers. In order to setup the EDI communication, **Appendix 1A and 1B (WEB) EDI – Agreement / EDI Check List** must be completed by the Supplier and returned to Inalfa.

The Supplier accepts that EDI (format EDIFACT) or Web-EDI shall be used for all delivery related information and data exchange, including the receipt of Purchase Schedules from Inalfa. In exceptional cases and upon written agreement of Inalfa, communication may also take place via e-mail, but the Supplier must always verify the receipt of the e-mail by Inalfa. The scheduling of each EDI connection will be agreed with the Inalfa ICT Department.

For suppliers with only one single part number or a not-possible EDI connection, a Web-

EDI application can be used instead. This Web-EDI application is available at the Inalfa Supply Web-EDI Portal. After requesting login details by filling out and returning **Appendix 1A and 1B (WEB) EDI – Agreement / EDI Check List** you can get access to the Web-EDI portal. An online training will be provided by the Inalfa SCM team.

5.2. ASN

The Advance Shipping Notification (ASN) must be provided to Inalfa within 60 minutes after loading of the products at the Supplier, independent of the agreed Incoterm. The ASN is an EDI formatted electronic notification of pending deliveries; an electronic packing list. The ASN is used to list the contents of the shipment. By sending this ASN, Inalfa will generate a material receipt for the shipment and the Supplier provides information to Inalfa Material Receipt in advance of delivery.

The Packing slip/Bill Of Loading information stated in the ASN must match the shipment information contained in the actual shipping document accompanying the shipment and what is referenced on the invoice.

In case of an incorrect or missing ASN, the Supplier may be informed by means of a logistic-NCR. An NCR sent out to the Supplier needs to be followed up by a G8D-report created by the supplier.

6. Packaging

The packaging section in this Supplier Logistic Manual focuses on aspects related to packaging ownership, roles and responsibilities over its lifetime, container management and labeling. In more detail, specific requirements for particular packaging types can be found in the related module of Inalfa's packaging standard. The structure of IPS (Inalfa's Packaging Standard) is displayed in **figure 2** below.

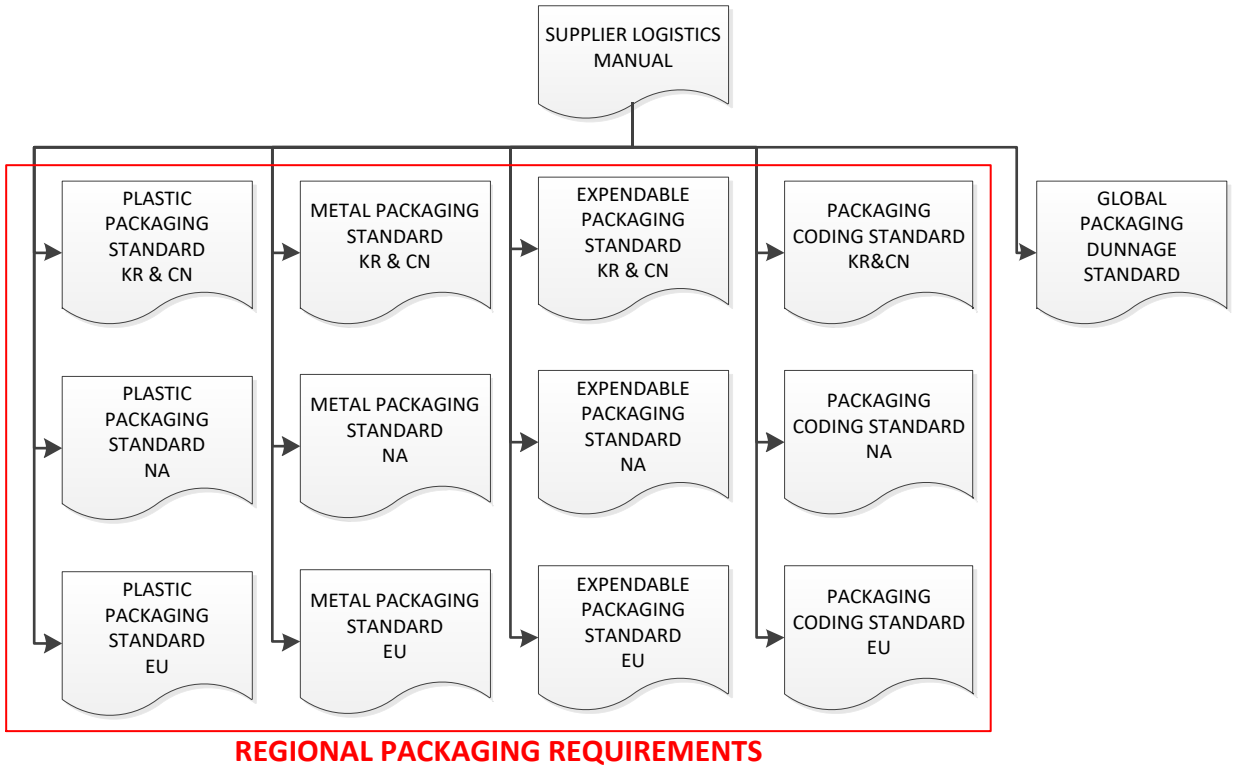


Figure 2 – Structure of Inalfa Packaging Standard

6.1. Standard introduction

Packaging is the most important criteria to support lean material flow and ergonomic station design.

The purpose of Inalfa's Packaging Standard is to:

- Achieve a high quality packaging standard that will increase productivity and assure safety;
- Ensure standard and common packaging across Inalfa's Supplier base and the several Inalfa plants;
- Ensure equipment from all Suppliers reaches Inalfa's required quality level;
- Ensure compatibility of equipment from Suppliers with Inalfa's plant equipment;
- Ensure a safe operation and environment protection;
- Ensure quality of parts during transportation, handling and storage.

Every part delivered to Inalfa's plants or Inalfa's designated external warehouses/assembly Suppliers needs to have an approved, standard packaging solution.

In addition to the standard packaging that was agreed as serial packaging, every part

placed in returnable packaging needs to have a back-up alternative packaging solution in place, mirroring the returnable solution design in terms of dimensions and filling quantity. The back-up alternative packaging shall only be used for delivery in special cases, properly justified, and approved by Inalfa's MRP planner. To request approval for the usage of alternative packaging the Supplier should provide an Alternative Packaging Use Approval Form as presented in Figure 3 below. After approval is granted by Inalfa, the completed Alternative Packaging Use Approval Form must be placed on the alternative packaging every time alternative packaging is used for shipment.

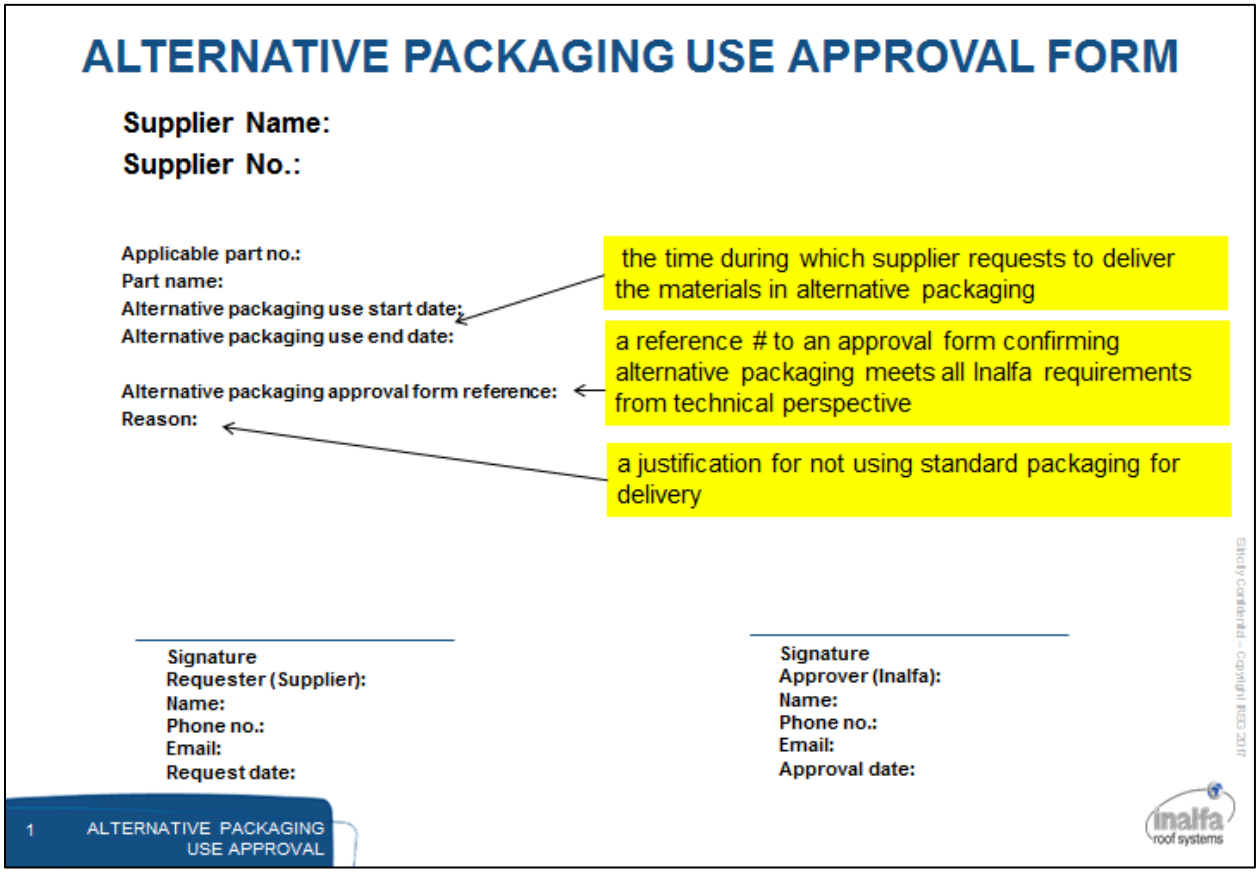


Figure 3 – Full pallet

Inalfa defines three categories of packaging:

1. Single unit packaging;
2. Shipping unit packaging;
3. Packaging made of all other additional materials like internal dunnage, plastic bags, part protectors, etc.

All deviations from Inalfa's Packaging Standard need additional, written consent from the responsible Inalfa Packaging Engineer/ Logistics Engineer

6.1.1 General packaging requirements

Every packaging needs to be designed to fulfill below tasks:

- Maintain and protect part quality and function during transportation and present a quality part to the production operator at the Inalfa production lines and if required including ESD (Electro Static Discharge) protection of electric components and corrosion protection for steel components;
- Ensure safe and ergonomic packing and unpacking providing efficient access for the Inalfa operators;
- Ensure efficient and ergonomic manual and/or mechanical packaging handling;
- Ensure effective space utilization during transportation and warehousing;
- Minimize waste and handling.

The following main general packaging requirements apply to the Supplier:

- Only one part number is allowed to be packed in a single packaging unit;
- Each part number needs to have a standard filling quantity and must at all times be delivered according to the agreed quantities;
- Packaging must allow unpacking without causing any safety risk;
- Orientation of the part in the packaging must minimize unpacking effort;
- To pack the parts into Individual plastic bags is not allowed;
- ESD-materials need to be used on specific electronic components and this is to be determined by the supplier;
- KLT packaging needs to be filled utilizing a minimum of 90% of its volume - or the weight of max 15kg (EU, KR&CN) / 32lbs (NA). (This requirement for weight might be lower based on ergonomic operation requirements);
- Packaging must be palletized to a standard footprint of a transportation pallet according to Inalfa's regional requirements (to be found in the following manuals: Expendable packaging standard, Metal packaging standard, Plastic packaging standard) to allow handling with industrial trucks and forklifts;
- Pallet height and weight shall be aligned with Inalfa's regional requirements;
- Stackability of metal racks and plastic and metal bins – shall be aligned with Inalfa's regional requirements, considering strength and weight of the stack, ensuring safety operation;
- Stacking plastic and expendable pallets – packaging shall allow stacking to maximize the usage for storage and transportation;
- Plastic Strapping tape is required for palletizing and fixing bins with covers, metal strapping. Shrink film is not allowed;
- Dunnage should be discouraged whenever possible and used only when parts need to be located, fixed or when part to part contact must be avoided;
- Usage of plastic bags, foam bags and other materials increasing operational workload are to be avoided.
- All features or surfaces considered critical to the quality or operation of the part are to be protected from damage and contamination;

- All expendable containers approved for serial production have to be Half Slotted Containers (HSC);
- All containers must be labeled according to the Inalfa's Transportation Label Guideline. (see section 6.5)

6.1.2 Palletizing instructions

There are different consignment types, which are mentioned below:

1. Full pallets, see figure 4:
    a. Homogeneous loads

Inalfa prefers a pallet to be loaded with only one part number at a time. The requirements as stated in this Supplier Logistic Manual and all related standards applicable to the respective region have to be followed by the Supplier whilst preparing the pallet for shipment. The related standards are: Expendable Packaging Standards, Metal Packaging standards, Plastic Packaging Standards.

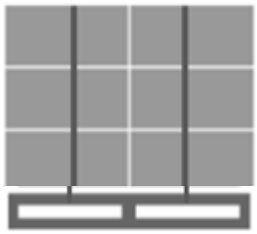


Figure 4 – Full pallet

    b. Mixed consignments

A load unit is called a mixed consignment when there is more than one part number loaded onto one pallet. If mixed consignments are packaged then the requirements as mentioned below section 6.7 have to be followed.

2. Not full pallets:
    a. Full layers

For consignments (expendable and returnable) that cannot complete a full pallet (e.g. call-off is not showing a full pallet factor), then the pallets should be packed to full layers, as shown in figure 5. These layers can contain one or several part numbers. For several different part numbers, the below section 6.7 has to be followed.

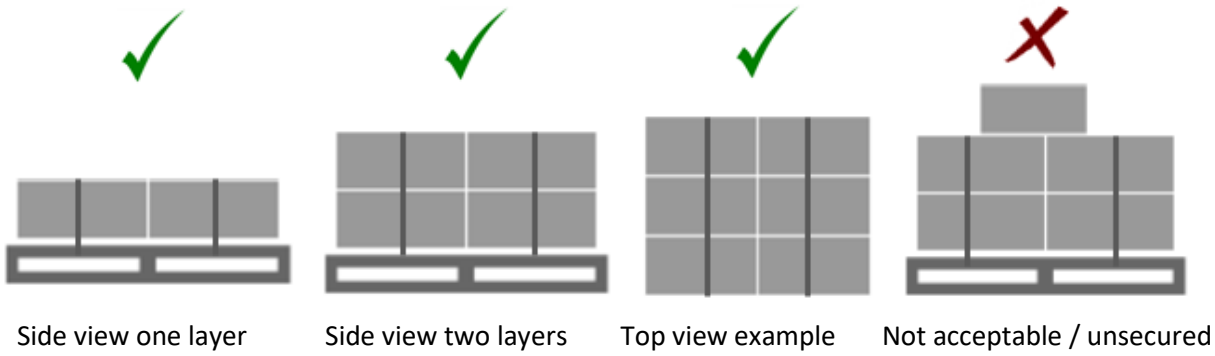


Figure 5 – Full layers of incomplete pallets are preferred

b. Incomplete layers

In the exceptional case that incomplete layers have to be shipped then those have to be secured properly to avoid pyramid packing, loss of the boxes, moving of the boxes and/or sliding of the boxes off the pallet. The quality of the parts needs to be ensured at all times and any risks should be avoided. To increase pallet strength the empty spaces need to be filled with empty boxes (as shown in figure 6. To increase efficiency at Inalfa Goods In (Delivery receiving point), all empty boxes will have to be visually labeled. Instead of a KLT label, the label should must read ”EMPTY” (see figure 7.)
In the case of an incomplete layer/consignment the Supplier has to create a loading list. This list has to mention, Supplier's name, Supplier's code, delivery note number, layer, part number, quantity of parts, amount of boxes, amount of empty boxes per layer (see figure 8). Pallets can be either homogeneous or made out of several part numbers. In each case a loading list has to be created.

The premise of this system is that the Supplier is expected to decrease the shipment of air (empty boxes). This means, for example, if there are only 1 or 2 single boxes to be dispatched, depending on size and weight of the KLT's, these boxes have to be shipped separately, see point 3 as mentioned below on Single Packaging.

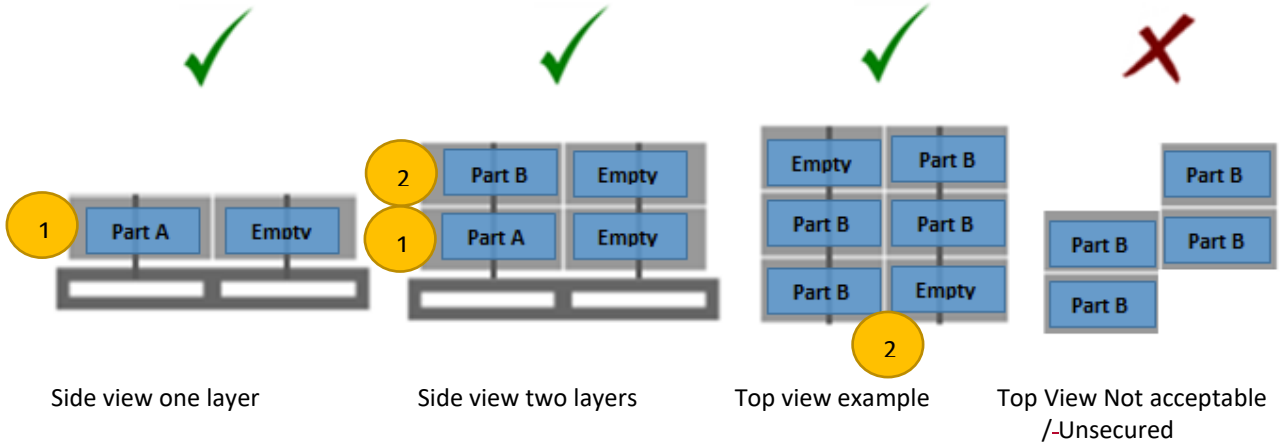


Figure 6– Layer completion

EMPTY

Figure 7 – Empty box KLT label

Supplier	XXXXX
Supplier No	XXXXX

Delivery Note Number	55554444

Layer	Part Number	Quantity	Amount Boxes
1	12345678A	500	5
1	Empty	0	1
2	87654321B	800	4
2	Empty	0	2

1

2

Figure 8– Example incomplete Layer Loading List

3. Single packaging – no palletisation:

To avoid loose boxes on pallets and, as a consequence thereof, damage to parts, all loose (single) KLT's can be send without a base pallet as long as the total weight of the unit including parts does not exceed 15kg (EU, KR&CN) / 32lbs (NA). Then, the KLT has to be sealed by either a lid or a similar cover that will not affect the quality of the parts.

Figure9– Example KLT with LID

6.1.3 Packaging of hazardous materials

Hazardous materials have to be packed and marked in compliance with the applicable laws and regulations as amended from time to time and they have to be accompanied by the corresponding latest version of the Material Safety Data Sheet (MSDS). Dangerous goods furthermore have to be packed, marked and transported in compliance with the applicable laws (e.g. ADR in Europe) and regulations of the respective countries (including transit countries) as amended from time to time.

6.1.4 Packaging selection

Packaging selection that is performed by the supplier is divided into 5 main steps (**figure 10** and needs to be adapted to each specific situation.

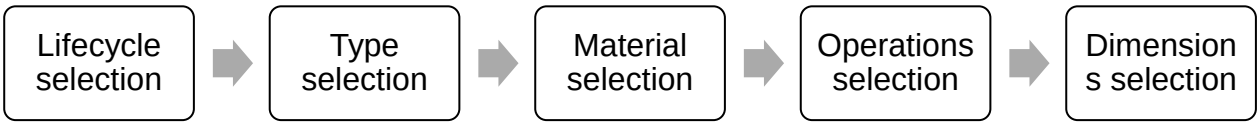


Figure 10 - Five Packaging selection steps

Packaging selection terms and conditions

- The application of returnable packaging shall be considered first choice. Only in properly justified cases, to be considered and approved by Inalfa, returnable packaging may be replaced by an expendable solution;
- The smallest possible, hand operated packaging selection is preferred;
- The container shall be palletised to standard pallet size according to regional requirements to improve freight carrier utilisation to full load (>90%) (see figure 12
- A single container should be adjusted to Inalfa's production requirement and agreed with the Packaging Engineer/ Logistics Engineer
- Safe packaging for handling and recyclable materials should be selected by the Supplier.

In order to ensure proper packaging to be selected, the Supplier should contact Inalfa's responsible Logistics Engineer and request guidance. Details on packaging selection requirements are available in the relevant regional **Inalfa Packaging Standard** (to be found in the following manuals: Expendable packaging standard, Metal packaging standard, Plastic packaging standard).

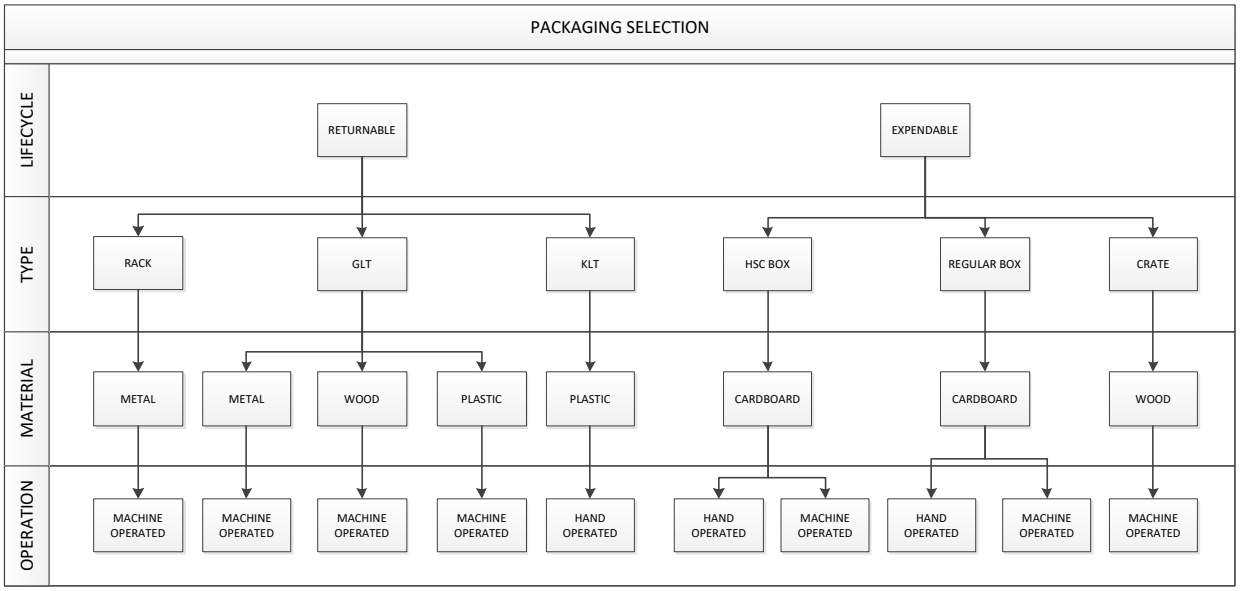


Figure11– Packaging selection – possible combinations

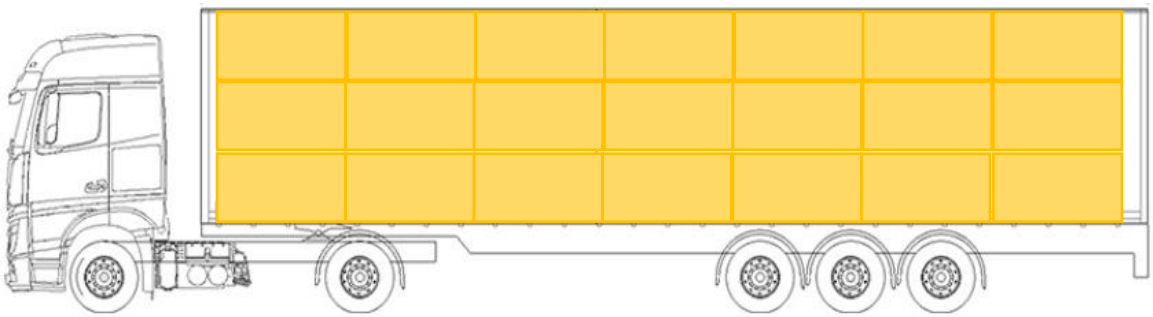


Figure 12 – Fully utilized truck

6.2 Responsibility

Inalfa's Part Suppliers and Inalfa's Packaging Supplier have own roles and responsibilities during the development and lifetime of the packaging. There are two scenarios of packaging ownership which influence the responsibilities assigned to the different parties:

- Packaging owned by the Part Supplier;
- Packaging owned by Inalfa (exception).

6.2.1 Roles and responsibilities for packaging owned by the Part Supplier

Role	Responsibility	
	Inalfa	Part Supplier
Design		**X**
Ownership		**X**

Maintenance		**X**
Approval	**X**	

Table 1. Roles and responsibilities – packaging owned by Part Supplier

Inalfa's role and responsibility with regard to packaging owned by the Part Supplier:

- To provide packaging standard
- To verify and approve the packaging solution of the Supplier according to Inalfa's Packaging Standard and Inalfa's packaging instructions;
- To inspect delivered packaging and perform actions to clarify deviations which need to be documented;
- To instruct how the supplier is to act on each deviation;
- To trigger necessary maintenance actions.

Part Supplier's main role and responsibility with regard to packaging owned by itself:

- To design a container according to Inalfa's Packaging Standard (to be found in the following manuals: Expendable packaging standard, Metal packaging standard, and Plastic packaging standard) and specific requirements for a particular part;
- To manufacture the packaging ensuring its quality and repeatability;
- To ensure all packaging is the same as the approved solution;
- To execute necessary maintenance actions – repairs or packaging replacement due to extensive damage;
- To ensure parts are delivered in clean packaging;
- To ensure a standard, approved container is used for the delivery of parts;
- To use approved backup packaging for the delivery of parts if standard packaging is not available;
- To perform necessary maintenance actions/repairs or packaging replacement due to extensive damage;
- To align on the required number of packaging in the loop with Inalfa;
- In case of deviation of packaging the supplier is to modify according to Inalfa requests;
- To ensure the agreed quantity of packaging is in the loop.

6.2.2 Roles and responsibilities for packaging owned by Inalfa

Role	Responsibility		
	Inalfa	Part Supplier	Container Supplier
Design			**X**
Ownership	**X**		
Maintenance	**X**		
Approval	**X**	**X**	

Table 2. Roles and responsibilities – packaging owned by Inalfa

Inalfa's role and responsibility with regard to packaging owned by itself:

- To provide packaging standard;
- To nominate a Container Supplier;
- To verify and approve the packaging solution of the Container Supplier according to Inalfa's Packaging Standard and Inalfa's packaging instructions;
- To inspect delivered packaging and perform actions to clarify deviations which need to be documented;
- To trigger necessary maintenance actions;
- To align on the required number of packaging in the loop with the Part Supplier;
- To ensure the agreed quantity of packaging is in the loop at all times.

The Container Supplier's role and responsibility with regard to packaging owned by Inalfa:

- To design packaging according to Inalfa's Packaging Standard, Inalfa's packaging instructions and specific requirements for particular parts;
- To manufacture packaging ensuring its quality and repeatability for complete life time cycle of the project;
- To ensure all packaging is the same as the approved solution;
- To perform necessary maintenance actions – repairs or packaging replacement due to extensive damage.

The Part Supplier's role and responsibility with regard to packaging owned by Inalfa:

- To verify, inspect and approve a container;
- To ensure a standard, approved container is used for the delivery of parts;
- To purchase and use an approved backup container for the delivery of parts if standard packaging is not available;
- To inform Inalfa about required maintenance actions.

6.3 Packaging approval process

Each container used for shipment to Inalfa must be approved Inalfa core functional team prior to first shipment.
Packaging approval process consists of 3 steps presented in **figure 13** and is led by Inalfa's responsible Plant Logistics Engineer, supported by Inalfa's responsible Packaging Engineer. See also below **figure 14** Inalfa packaging approval process form.

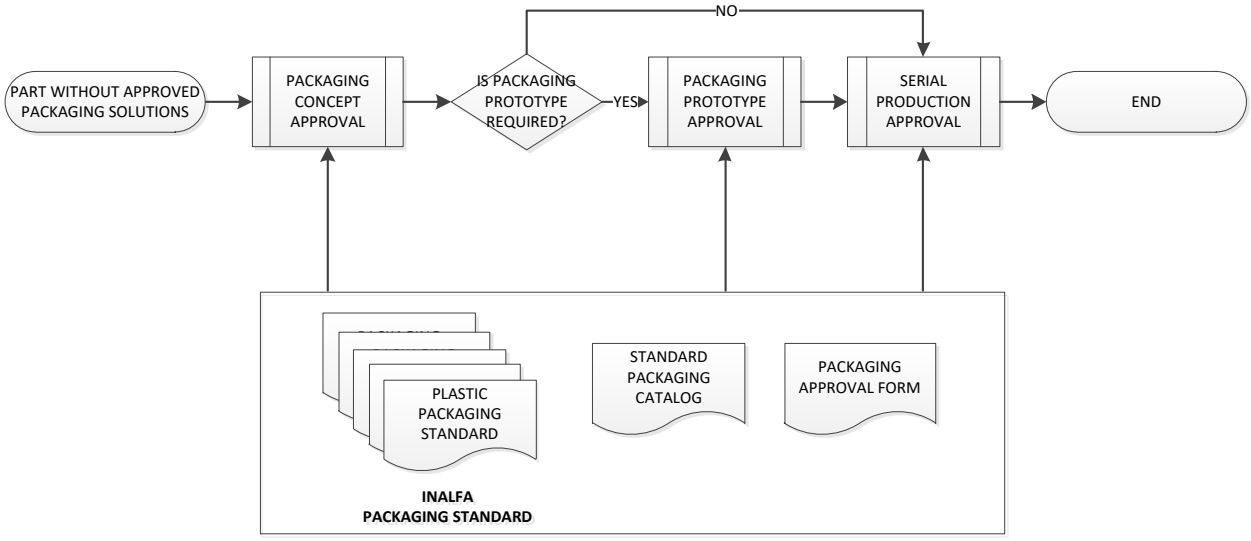


Figure 13 – Inalfa packaging approval process

Process details are described in **Inalfa Packaging Approval Process**.

PACKAGING APPROVAL FORM — PROTOTYPE APPROVAL — EDITIONNR 1

SUPPLIER INFORMATION		INALFA INFORMATION		Role	Name		Signature	Date
		PART NAME:		Inalfa – Packaging Engineer	X			
SUPPL NAME:		Part Number (s)	1)	Inalfa – Plant Logistics Engineer	X			
		Part Number (s)	2)	Inalfa – Material Flow Coordinator	X			
ADDRESS:		Part Number (s)	3)	Inalfa – Process Engineer	X			
		Part Number (s)	4)	Inalfa – Production – Line Supervisor	X			
		Part Number (s)	5)	Inalfa – Plant Quality	X			
		Part Number (s)	6)	Inalfa – SQD engineer	X			
CONTACT:		INALFA PROJECTNUMBER		Inalfa – Purchasing (IPD)				
TITLE:		Inalfa Contact -		Part Supplier – Commercial	X			
PHONE		CONTACT:	A					
EMAIL:		TITLE:	Plant logistics engineer	Part Supplier – Logistics	X			
DATE:		PHONE	+00 123 456 789					
		EMAIL:	a.a@inalfa-roofsystems.nl	Packaging manufacturer (if separate)*	X			

PACKAGING INFORMATION

PART INFORMATION	SINGLE CONTAINER	SHIPPING PACKAGING (1)	SHIPPING PACKAGING (2)
PLEASE ADD A PICTURE OR SKETCH	PLEASE ADD A PICTURE OR SKETCH	PLEASE ADD A PICTURE OR SKETCH (1)	PLEASE ADD EXTRA PICTURE OR SKETCH (IF REQUIRED)
PART DIMENSIONS (MM) L * W * H	SINGLE BOX DIMENSIONS (MM) L * W * H	OUTER DIMENSIONS (MM) L * W * H	STACKABILITY OF PACKAGING MIN: 1 MAX:
PART WEIGHT (KG)	BOX WEIGHT TARE (KG)	WEIGHT TARE (KG)	PACKAGING OWNER
GROSS WEIGHT	PCS / BOX	PCS / COMPLETE PALLET	SERIAL PACKAGINGS IN THE LOOP

PACKING MATERIALS	QTY	LIFECYCLE	DESCRIPTION	PACKAGING TYPE	QTY	LIFECYCLE	DESCRIPTION	PACKAGING TYPE
SERIAL PACKAGINGS IN THE LOOP								

CARRY OVER PACKAGING YES ☐ NO ☐

PLEASE ADD HERE ADDITIONAL INFORMATION

Figure 14 – Inalfa packaging approval process form

6.4 Container management

Proper container management is essential and ensure on time material deliveries, at optimized logistics cost.

6.4.1 Packaging loop size

Container management starts with the identification of the required packaging loop and a loop calculation, see **figure 15**. As it is an important logistics cost driver, it should be calculated and aligned prior to the Supplier's nomination as well as included in the Supplier's quotation. Packaging loop size shall be calculated according to Inalfa's packaging fleet calculation tool based on loop days, Supplier's location, packaging filling degree, shipping frequency, weekly maximum capacity, service, repair, safety stock etc. In addition to the calculated packaging loop size the Supplier shall be responsible for calculating and purchasing any additional packaging required to gain efficiencies in production, bank build or cover tool changes.

To calculate and align packaging loop size, please contact Inalfa's responsible Plant Logistics Engineer.

Inbound Packaging Loop Days Calculation

Parts information	Partnumber			
	Partname			
	IRS Project Number			
Customer information	Customer name			
	Address			
	Zipcode & City			
	Country code			
	Distance (km)	169		
Sales information	Volume per year			
	Work weeks per year			
	Work days per year			
	Volume per week	4.805		
	Volume per day	961		
Delivery information	Suggested delivery frequency	0,2		
	Delivery frequency (x per week)[1]	1		
Packaging information	Partnumber	123456789		
	# Parts per packaging	576		
	Dimension packaging	Length	1.200	mm
		Width	800	mm
		Height	800	mm
	Cost per rack			
Vehicle information	Dimension van	Length	6.000	mm
		Width	2.450	mm
		Height	2.800	mm
	# Packagings per truck		42	
	# Parts per truck		24192	

		# Days	# Packaging	# Parts
Packaging loop	Inalfa empty	5,0	9	5.184
	Inalfa WIP/safety stock	1,5	3	1.728
	Inalfa full (incl. JIS)	5,0	9	5.184
	Transport full	1,0	2	1.152
	empty	1,0	2	1.152
	WIP	1,0	2	1.152
	full	2,0	4	2.304
	Transport empty	0,5	1	576
	Buffer (QI / cleaning / etc)	1,0	2	1.152
	Total	**18,0**	**34**	**19.584**
	Cost		€ -	

Inalfa	**0**	Legend
Name:	Name:	Data entry (non calculation)
		Fixed' values (calculation)
Date:	Date:	Data entry (calculation)
		Calculated value (don't change)

Figure 15 Example of packaging loop size calculation form

6.4.2 Damage and Protection

Damaged packaging could lead to rejected parts and safety issues. Therefore damaged packaging needs to be taken out of the loop immediately after identification and must be repaired or replaced. The Damaged Packaging Label (see **figure 16** for an example) has to be filled out completely and fixed to the damaged pallet (each single pallet needs to

have its own Damaged Packaging Label). The following Damaged Packaging Label has to be used and can be requested from Inalfa's responsible Packaging Engineer or Inalfa's responsible Plant Logistics Engineer.

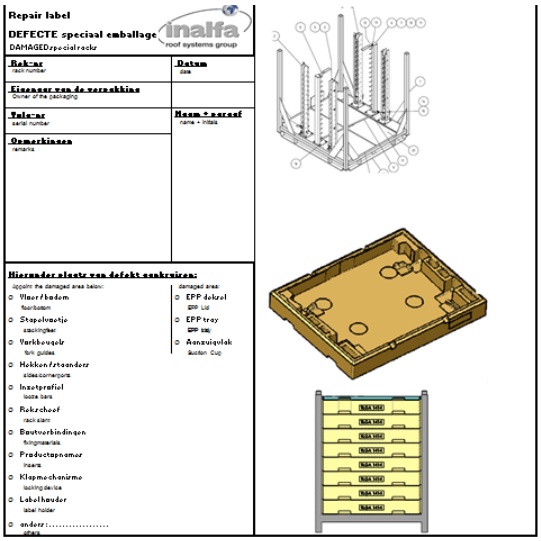


Figure 16. Example of Damaged Packaging Label

The ownership of packaging maintenance activities is defined in the packaging ownership model and described in section 6.2.2 of this Supplier Logistic Manual.

6.4.3 Packaging cleaning

Parts must be delivered to Inalfa in clean packaging. Regardless of the packaging ownership, it is always the Supplier's responsibility to deliver goods in clean packaging.

In order to ensure clean packaging handling, the following requirements are defined throughout the supply chain:

- The Supplier is obliged to clean returnable packaging;
- The Supplier is obliged to remove obsolete labels from empty returnable packaging;
- Inalfa checks the incoming shipment on clean and dry packaging. If goods are received in dirty or wet packaging, the Supplier will be charged for the cleaning cost by NCR and all further costs and damages;
- Returnable empty packaging shall be stored under a shelter or inside a building at all times and all storage locations.

6.5 Labeling

Every packaging unit that is sent to Inalfa needs to be identified with a proper label which

information shall match the information of the ASN.
All labels shall be clearly visible from the outside and accessible for all boxes on the pallet. All labels need to be sufficiently robust to ensure that they can be read both manually and by barcode scanners. In case of incorrect labeling the Supplier will be informed by means of a logistics NCR report.

Inalfa distinguishes the following label types:

- Single Label;
- Master Label;
- Mixed Label;
- New Product Label.

6.5.1 Single label

Applicable for each single packaging unit, additionally to a MASTER/MIX label

Inalfa label content, see **figure 17**:

Field	Data to be entered
Supplier Name	Supplier - Business Name
Supplier Address	Supplier - Business Address – This can be up to two lines if needed
Supplier City, State, ZIP	Supplier - Business Location City, State (Province) and Postal Code
Country of Origin	Supplier – Country where the parts were manufactured
Ship To Name	Inalfa – Facility Name . From the DELFOR document – NAD segment ST qualifier
Ship To Address	Inalfa – Facility Name . From the DELFOR document – NAD segment ST qualifier
Ship To City, State, ZIP	Inalfa – Facility Name . From the DELFOR document – NAD segment ST qualifier
Part Number	The Inalfa part number. From the DELFOR document – LIN segment 26 qualifier. Barcode Qualifier P
Part Description	Human Readable – Description of the part number
Total Quantity	The total number of parts in this container. Barcode Qualifier Q.
Material Handling Unit	Human Readable – The container code sent in the PAC+1 segment of the DESADV
Shipment Number	Human Readable – The unique identification number associated with this shipment
License Plate	The Inalfa provided 7 digit supplier ID (From the DELFOR document – NAD segment SU qualifier) followed by a unique non-repeating sequence number. Barcode Qualifier 1J
Purchase Order	Human Readable – The Inalfa provided purchase order number. From the DELFOR document – RFF segment ON qualifier
Supplier Part Number	Human Readable – The internal part number used by the supplier to identify a part
Ship Date	Human Readable – The Shipment Date of this Master container in “mm/dd/yyyy” format.
Master License Plate	Human Readable – The master license plate number used to tie together multiple license plates which makeup an entire pallet
Lot Number	Human Readable – The internal supplier lot number

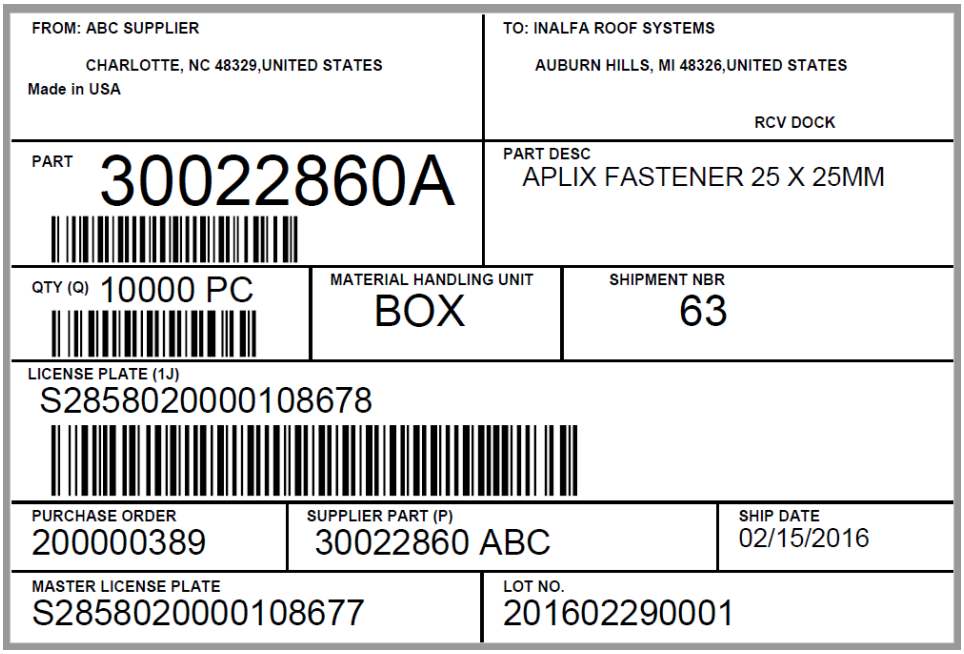


Figure 17 – Inalfa single label example

Please note: The License Plate is build up of two sections. The first is the 7 digit Supplier-ID provided by Inalfa. This can be found in the DELFOR-release sent in the NAD segment with the SU qualifier. It normally starts with the letter 'S' see **figure 18**. The second section of the license plate is a unique non-repeating serial number. The combination of these two ensures that every license plate in Inalfa's receiving warehouse is unique.

Figure 18 – Inalfa license plate build up

6.5.2 Master label

A MASTER label should be used on the shipping packaging unit of homogeneous single packaging units with identical article numbers.

6.5.3 MIX label

A MIX label should be used on the shipping packaging unit for mixed packaging with different part numbers in the inner delivery units.

6.5.4 New Product label

A new product label, see **figure 19** should be attached to the packaging in case of delivery of NON-PPAP parts to Inalfa. The format of this new product label will be distributed through Inalfa's SQD-department (see the Supplier Quality Manual for reference).

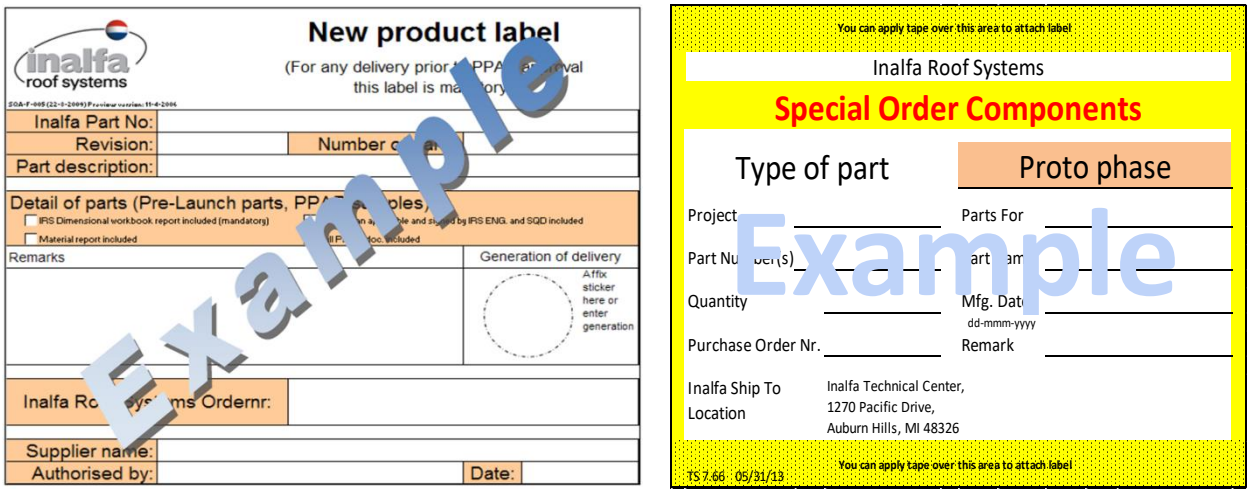


Figure 19 – Inalfa new product label & special order components label

6.5.5 Labeling of different packaging

Depending on the packaging type, the label must be positioned in an appropriate location to allow easy load identification and quick material processing. In figures 20.1- 20.4 below, labeling examples are presented.

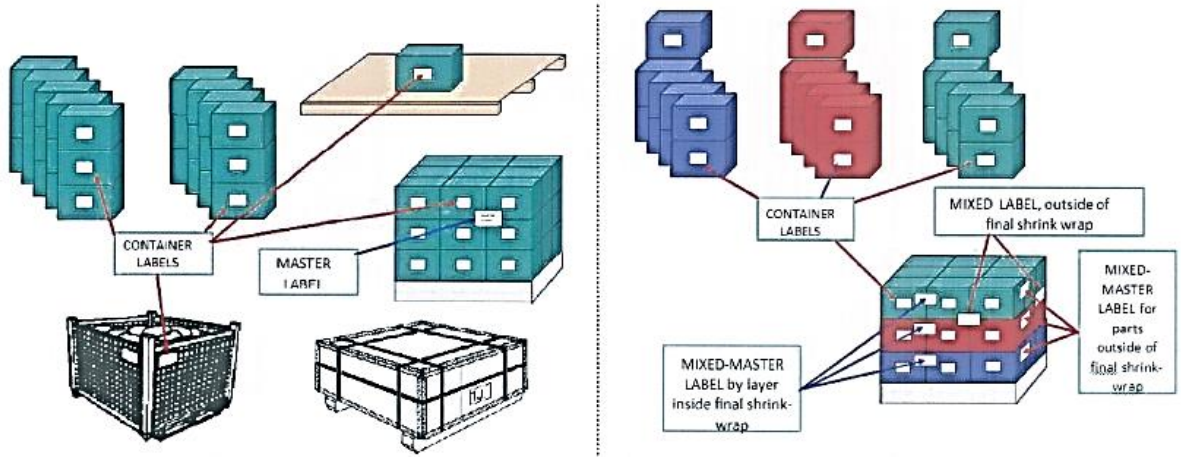
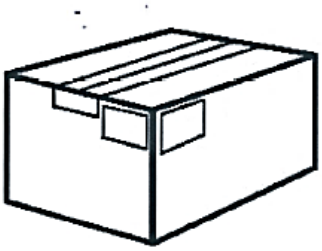
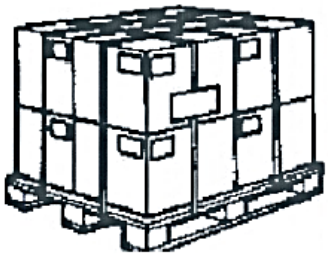


Figure 20.1 – Labeling examples



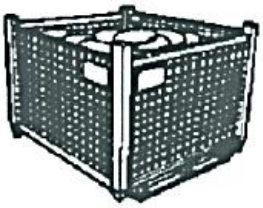
Box or Carton
Identical labels shall be located on two adjacent sides or as agreed to by the trading partners (wrap around label acceptable). The upper edges of the labels should be as high as possible up to 508mm from bottom of carton.



Carton on Pallet
See Pallet load instruction for details.

Drums, Barrels, or Cylindrical Containers
Identical labels shall be located on the top and near the center of the side.

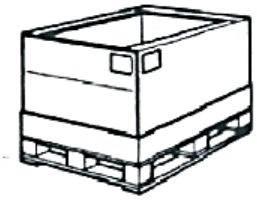
Bales
Identical labels shall be located at the upper corner of an end and the adjacent side or as agreed to by the trading partners (wrap around label is acceptable).



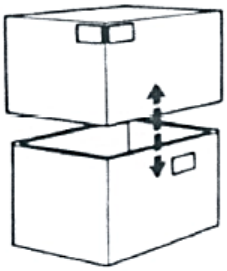
Basket, Wire Mesh Container
Identical labels shall be located on two adjacent sides or as agreed to by the trading partners.

Metal Bin or Tub
Tag one visible piece near top, or use a label holder or as agreed to by the trading partners. (See below Tag label sample)

Figure 20.2 – Labeling examples

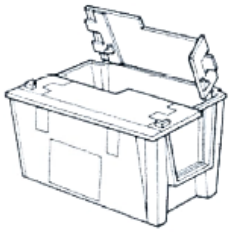


Pallet Box
Identical labels shall be located on two adjacent sides or as agreed to by the trading partners (wrap around label is acceptable).

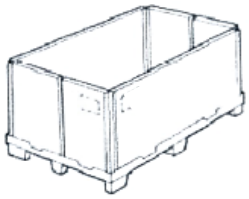


Telescopic or Set-Up Containers
Identical labels shall be located on two adjacent sides of the outer box or as agreed to by the trading partners. Some applications may also require identification of the inner box (wrap around label is acceptable).

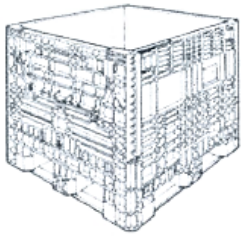
Bundles
Identical tag shall be located at each end.



Plastic Modular Container, Tote (KLT)
Identical labels shall be located on two opposite sides in designated locations or as agreed to by the trading partners



Collapsible Sleeve Pack
Identical labels shall be located on two adjacent sides in designated locations or as agreed to by the trading partners.



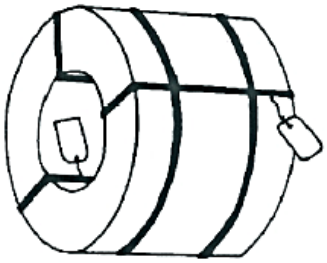
Plastic Pallet Box
Identical labels shall be located on two adjacent sides in designated locations or as agreed to by the trading partners.

Bag
Place one label at the center of the face.

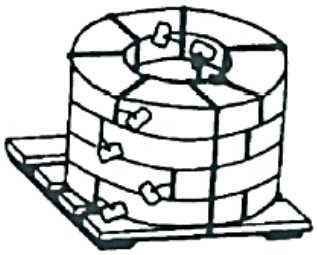
Roll
This sample is no longer appropriate. If used, must be in container labeled on 2 adjacent sides or as agreed to by trading partners.

Rack
This sample is no longer appropriate. If used, must be in container labeled on 2 adjacent sides or as agreed to by trading partners. (May require 2,3 or more labels)

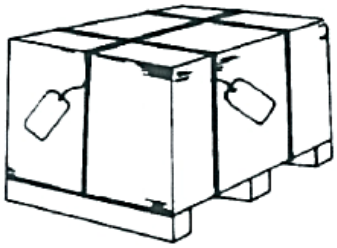
Figure 20.3 – Labeling examples



Coil
Hang two identical labels inside and outside coil, attached to banding.



Slit Coil
Hang two identical labels inside and outside each slit coil, attached to banding.



Blanks
Hang two identical labels on two adjacent sides in designated locations or in holder.

Figure 20.4 – Labeling examples

6.6 Mixed Consignment

A load unit is called a mixed consignment when there is more than one part number loaded onto one pallet. In case of a mixed consignment Inalfa needs to be able to recognise in which pallet the corresponding part number is located **as in figure 21**. The following information, which has to be attached clearly visible to the mixed consignment, is therefore required:

- Supplier Name and Number;
- Delivery Note Number;
- Part Numbers on Pallet;
- Amount of Boxes for each part number.

Supplier	xxxxxxx
Supplier No	xxxxxxx

Part Number	Quantity	Amount
12345678A	50	5
87654321C	300	3
xxxxxxxxA	1000	1

Figure 21 – Example Packing List

6.7 Commercial

Upon quoting business to Inalfa, the Supplier must quote a piece price including a packaging solution. The packaging solution included in the Supplier's quotation requires approval from Inalfa's responsible Packaging Engineer before the Supplier's quotation can be considered as complete.

In case no price breakdown is provided during the quotation phase the piece price shall be considered to include packaging according to Inalfa's requirements.

Suppliers must incorporate all packaging costs in their quotation, which must be:

- Identified separately in the piece price;
- Amortized over the life of the program.

All costs associated with packaging development and production shall be deemed to be included in the amortized packaging allocation of the piece price including:

- Tooling;
- Expendable backup packaging;
- Dunnage and additional packaging materials (e.g. foil, plastic bag, cardboard layers) that is required to protect goods from being damaged, polluted, etc.;
- All maintenance, repair and cleaning of containers;
- All design, development and testing.

The decision about the ownership of the packaging will be made by Inalfa. In exceptional cases, Inalfa can be the owner of the packaging.

6.8 Cost Allocation

The supplier has to be aware of the cost allocation and responsibilities presented in the table below.

Cost Description	Responsible Party	
	Supplier	Inalfa
Procurement costs of Supplier standard and special-purpose containers	X	
Costs for one way packaging inserts for special and standard container	X	
Costs for supplier-owned containers	X	
Procurement costs of containers for additional packaging for internal use at the supplier (e.g. for production, WIP stock, storage of safety stock)	X	
Costs for packaging without agreement with IRS or no packaging required	X	
Costs for transport and development of packaging for sample parts and pre-production parts	X	
Costs incurred by the use of damaged, wet and dirty packaging	X	
Costs incurred by the non-conformity with specified packaging (repacking costs)	X	
Costs for non-approved scrapping of IRS owned containers or the loss of containers	X	
Repair costs of supplier owned standard and special-purpose packaging	50%	50%
Replacement costs of packaging lost during transportation (e. g. vehicle accident, theft)	50%	50%
Replacement costs of packaging in the event of shortages without proof of the suppliers accounts	100%	

Figure 22 – Packaging cost allocation

7 *Supplier Self-Assessment*

7.1. Self-Assessment

Supplier will receive a self-assessment questionnaire regarding the required basic logistic planning concepts, based on Inalfa Global Material Management Operations Guideline Logistic Evaluation which can downloaded from http://www.aiag.org/products/products-list/product-details?ProductCode=M7-4.

Inalfa requires its suppliers to perform the Global MMOG/LE to self-assess their logistic processes. Global MMOG/LE is developed jointly by ODETTE and AIAG and is aligned with the ISO/TS 16949 standard. Supplier's internal delivery concept planning will be evaluated accordingly by a scheduled Inalfa Logistic Process Audit (LPA).
The current valid version of the self-assessment can be downloaded on the AIAG homepage as mentioned before.

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. The Global MMOG / LE will be required in the following stages / situations:

- Supplier intake;
- Pre-launch of an Inalfa project;
- A SOP at Inalfa;
- A supplier in the Top Focus program;
- Event Driven.

Inalfa reserves the right to carry out on-site logistic audits by arrangement with Supplier.

7.2. Logistics Process Audit (LogPA)

LogPA is a detailed Logistics Process Audit which will be accomplished by Inalfa at Supplier's production facility. It's used generally in the launch and ramp-up phase highlighting logistic and manufacturing processes at the part level. The LogPA may result in corrective action having to be implemented for which measurement criteria will be agreed upon by Supplier and Inalfa. The LogPA will be conducted at the Management Level for which advance notification will be given.
Each supplier has to arrange LogPA's with its sub-supplier. If necessary Supplier can ask the Inalfa Logistics department for support regarding the LogPA methodology.
LogPA is a necessity for the overall release. Supplier will pay for tooling and logistics costs based on the overall release.

8. Engineering changes

In the event Supplier needs to modify a tool, Supplier shall provide written notice to Inalfa prior to the tool being modified to allow Inalfa to confirm the bank build that needs to be completed.
Supplier needs to send the exact part number & version that Inalfa orders in the EDI. If Supplier is not able to fulfill the EDI, Supplier needs to inform Inalfa as soon as he notices new PN in the call-offs. Any digression from this procedure needs Inalfa's prior written approval.
All Part Numbers need to be marked to allow a clear identification of the revision.
Supplier is not allowed to deliver previous revisions after the first delivery of the new revision.

9. Financial penalties

All deviation from above rules will cause financial penalties. Supplier will be charged with all costs that are generated due to incorrect actions or lack of information. Reference is made to the GT&C's of Inalfa.

10. Final provisions

This Supplier Logistic Manual applies to all suppliers of Inalfa.

The GT&C's of Inalfa, including all amendments, changes and modifications thereto as may be subsequently posted on the Inalfa website apply to and are deemed to be incorporated in this Supplier Logistic Manual and binding on the Purchase Contract and Supplier.

In case of inconsistencies between this Supplier Logistic Manual and the GT&C's, the GT&C's shall prevail. Deviation from this Supplier Logistic Manual in the Purchase Contract or Purchase Order are only valid in case of explicit mentioning forenamed deviation in the Purchase Contract or Purchase Order.

This Supplier Logistic Manual shall be governed by the laws of the registered office of the Inalfa entity issuing the Purchase Contract or Purchase Order.

All disputes, including interim injunction procedures, related to and/or arising from this Supplier Logistic Manual, the GT&C's of Inalfa, the Purchase Contract and/or other agreements to which the GT&C's of Inalfa apply, shall only be brought before the competent court in the jurisdiction of the registered office of the Inalfa entity issuing the Purchase Contract, to the exclusion of all other courts.

11. Agreement

By receipt of this Supplier Logistic Manual, Supplier agrees to comply with the instructions captured within.

Inalfa Representative Name:	
Signature:	
Title:	
Date:	
Supplier Name:	
Representative Name:	
Signature:	
Title:	
Date:	

Appendix 1A – (WEB) EDI – Agreement (Request for Login details for a specific person)

	Inalfa Roof System	Trading Partner
Name Address		
Contact person Logistics	SCM Department Tel : Mail : TBD	
Contact person IT	IT Department Tel : Fax : TBD Mail : TBD	
Value Added Network(VAN)	Covisint	
Sender/Receiver ID & Qualifier		

Filled out by	
Name:	
Date:	
Function:	

Appendix 1B – EDI Check List

Does your organization have EDI communication capabilities ?	Yes	No *
Is your EDI integrated in your ERP system?	Yes	No *
Are you willing to use INALFA's Web-EDI application?	Yes	No *

* = please strike through what is **not** applicable

Signed by: _____

Function: _____

Date: _____

Signature: _____

Appendix 2 – Supplier Check List

Inalfa Roof Systems - Logistic Supplier Checklist

For questions regarding the Logistic Supplier Checklist, please contact : Rob.Teunissen@inalfa-Roofsystems.nl

1 General Supplier information

Name	
Address	
ZIPP Code	
City	
Country	

Production plant	
Address	
ZIPP Code	
City	
Country	

2 Supplier Contact Information

Function	Name	Email address	Phonenumber	Language
Plant manager				
Production manager				
Logistic manager				
Logistic contact				
Transport contact				
Emergency contact				

3 EDI

3.1	Is there EDI available?		Yes	No *	* = please strike through what is **not** applicable
3.2	If "Yes", what standard are you using for EDI and labelling?	EDIFACT	Yes	No *	
		ODETTE	Yes	No *	
		VDA	Yes	No *	
		Other			
3.2.1	Is your EDI integrated in your ERP system?		Yes	No *	
3.3	If you do not have any of above named EDI standards, please answer following questions:				
3.3.2	Are you planning to purchase on of the above EDI standards?		Yes	No *	which is:
3.3.3	Are you willing to use Inalfa's Web-EDI application?		Yes	No *	

4 Part information

		4.1 Production							4.2 Raw material				4.3 Supplier Leadtimes		
Inalfa Partnumber	Description	Maximum Daily Production Capacity	Setuptime	Production Batchsize	Minimum Purchased Batchsize	Multiple parts on same line?	Multiple customer on same line?	% Capacity dedicated to Inalfa	Material type (e.g. plastics, steal)	Delivered in coil, plate, bulk goods?	Raw material dimensions	Raw material weight	Longest leadtime in working days	Name supplier with longest leadtime	Country supplier with longest leadtime

5 Logistic part information

	5.1 Packaging									5.2 Transport		5.3 Inventory parameters			
Inalfa Partnumber	Lowest packaging quantity	Quantity of returnable packaging in loop	Returnable	Stackable	Length	Width	Height	Weight	Property	Transport frequency to Inalfa	INCOTERM agreed with Inalfa	Raw material in days	Raw material quantity	Finished product in days	Finished product quantity

6 Logistic Process Information

6.1 What is your contingency plan in case of :

6.1.1 Bad delivery performance of your supplier ?

6.1.2 Backlog delivery of you supplier ?

6.1.3 Unexpected closure from supplier (e.g. bankrupcy, fire, other calamity) ?

6.2 Usage of information systems

Used steering & information systems	YES	NO	Name of application	Remarks
ERP-systems				
Production Scheduling Tools				
Material Requirements Planning				
Transport Planning Tools				

7 Signature

Signed by _____ Signature _____

Function _____

Date _____

Appendix 3 – Packaging Specification Data Sheet

PACKAGING SPECIFICATION DATA SHEET

PART INFORMATION (Digital Photo or Sketch)	**INTERIOR DESIGN DIGITAL PHOTO (or Sketch)**	**PROGRAM:** CD4, C520				**REVISION NO.**			
		PLANT(s): INALFA MEXICO				**DIMENSIONS**			**CONTAINER TARE**
		QTY	**CNTR**	**NAME**	**MATERIALS**	**L**	**W**	**H**	**WT**
DIMENSIONS (IN) L: 2.80 W: 1.18 H: 0.79 — **WEIGHT PER PIECE (LB)**: 0.0139		**PACKAGING NOTES**			**INALFA CNTR I.D.**	**CNTR**	**WEIGHT/CONTAINER**		
CONTAINER PHOTO (or Sketch)	**Expendable Packaging Specs**		No. Layers	Parts Per Layer			**PCS / PART**	**GROSS**	
	Single Wall ☐ Double Wall ☐ Triple Wall ☐ Burst Strength Edge Crush Test Weight Limit				PRIMARY				
					UNIT				
CONTAINER TYPE ☐ INALFA STANDARD Returnable Container ☐ UNIQUE Returnable Container ☐ EXPENDABLE Container	**INALFA PART NUMBERS:** 1.) 2.) 3.) 4.) 5.) 6.)	**PACKAGING APPROVAL INALFA USE ONLY** M.E. Approval: Date: Materials Approval: Jovi Barnes Date: Manufacturing Approval: Date: SDE Approval: Date:					**TRANSPORTATION TYPE**		**SHIPPING INTERVAL**
							Inalfa Truck ☐		Daily ☐
							Milk Run ☐		Every Other Day ☐
							Commercial Direct ☐		Twice Per week ☐
							Commercial Indirect ☐		Weekly ☐
							International-Land ☐		Bi-Weekly ☐
							International-Air ☐		Monthly ☐
							International-Sea ☐		Other ☐
							International- Rail ☐		
SHIPPING UNIT PHOTO (or Sketch)	**PART NAME:** **SUPPLIER NAME:** **INALFA SUPPLIER CODE:** **SUPPLIER ADDRESS:**								
	PHONE: **FAX:** **CONTACT** **TITLE:** **EMAIL:** **DATE:**	**SUPPLIER APPROVAL** Supplier Approval: Date:					**CARRY OVER PACKAGING** YES ☐ NO ☐		
CONTAINERS PER PALLET MIN: 9 MAX: 27									

Appendix 4 – Freight Forwarder Operating Procedure Checklist

- Specification of the service provided:
  - Scope
  - VSM
  - Flowchart
- Communication matrix:
  - Names, email-addresses, tel.nr.
  - Escalation –levels
- Data-transfer / EDI:
  - How is this done?
  - When is data transferred?
  - Who is doing what?
- Invoicing:
  - When invoice send?
  - How send: e-mail, hard copy, EDI?
  - In what format send?
  - Send to what e-mail address?
  - Dispute-handling
- Reporting: specification of reporting and frequency
- Time window:
  - Opening times CS
  - Scheduled Time Windows for truck arrival
  - Exact addresses
- Non-conformities:
  - Procedure
  - Reporting
  - Dispute handling