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1. Purpose & Scope

Arrow Electronics Inc. and its subsidiaries (hereinafter referred to as Arrow) handles global supply chain and logistics for customers, using decades of expertise, a global network of suppliers, and our proven, efficient processes. To ensure Arrow remains efficient and delivers defect free supply chain services we have requirements and recommended best practices for our suppliers when it comes to labelling, packaging, and identification of products.

This document outlines these requirements and recommend best practices which Arrow has for all suppliers. As technology evolves, this document will be updated to continue to represent best in class delivery, labeling and packaging standards. In the interest of continuous improvement Arrow encourages all suppliers to continue to develop and invest in new cost effective and efficient technologies, and to coordinate with Arrow to further drive efficiencies through our mutual value streams.

Arrow encourages all suppliers to strive to meet these requirements and to coordinate with Arrow Supplier Quality as needed if unable to. It is Arrow's expectation that all suppliers will meet these requirements or as otherwise agreed upon. Arrow will field inquiries relevant to the requirements set forth in this document via GSQ@arrow.com.

Arrow's global vision for supplier deliveries, labelling and packaging:

- All deliveries to Arrow are planned and agreed upon
- Matching ASN provided for all deliveries
- All shipments always packed in a safe manner and in accordance with regional requirements
- All cartons labeled with 2D barcodes containing all required Data Identifiers
- Master 2D label provided to facilitate single scan receipt of delivery

Regional provisions are provided in appropriate sections hereinafter.

The guidelines ensure we meet expectations regarding Quality, Costs and Accuracy, and will help utilize Industry 4.0 techniques for continuously improving processes.

1.1. Purpose

- 1.1.1 The purpose of this specification is to provide technical requirements that will address the product, shipment identification and packaging needs of all Primary Distribution Centers and Warehouses under Arrow and the end customer. This document refers to global identification standard ECIA publication, EIGP Labeling Specification for Product and Shipment Identification in the Electronics Industry - 2D Barcode (Including Human Readable and 1D Barcode) Labelling, and will state requirements for standardized sets of data, data identifiers, and specific placement for each applicable level of labeling used in the electronic component supply chain.



1.2. Scope Summary

- 1.2.1. All shipments to Arrow must be notified and agreed upon upfront. A suitable date and timeslot for both Arrow and the Carrier will be agreed and planned. A unique reference is shared that needs to be presented at time of delivery.
- 1.2.2. Arrow requires notification of a pending delivery by means of Advanced Shipping Notice (ASN).
- 1.2.3. Labels with 1D, 2D, and human readable barcodes on various Product Packaging Levels, Shipping Cartons and Documents are required. Prefixes are defined and should be used consistently across the Supplier's manufacturing sites.
- 1.2.4. Delivery Notes and/or Packing Slips must be included with the products in a document pouch. A stack of Delivery Notes and/or Packing Slips for a complete consolidated shipment is not acceptable.
- 1.2.5. Delivery Notes and/or Packing Slips must be shared digitally as a PDF file by e-mail. Document name must be the Delivery Note and/or Packing Slip Number.
- 1.3. Cartons belonging to a complete Purchase Order or Delivery Note and/or Packing Slip must be included in the same shipment. Cartons that belong to one Delivery Note and/or Packing Slip need on a label outside of the carton indicating the common reference (usually Delivery Note and/or Packing Slip Number), the carton count and total carton count in barcode and human readable form.

2. Glossary

- 2.1. The terms below will be referenced throughout the document to assist in understanding labeling requirements.

TERM	DEFINITION
1-Dimensional (1D) Linear Barcode	A barcode symbol formed of a single row of symbol characters. Referred to as linear barcodes in this document.
2-Dimensional (2D) Barcode	A barcode symbol formed of elements in a 2-dimension area that encode data vertically and horizontally.
Carton Label	Also known as a Logistics Label. See definition below
Data Identifier (DI) / Prefix	A specified character or string of characters that defines the intended use of the data element that follows.
Product Label	Label required at the product level that contains product data in text and barcode format(s).
Intermediate Label	Label required at the intermediate (or inner pack) level that contains product data in text and barcode format(s).
Logistics Label	Also known as a carton or shipping label. Label required on shipment packaging that contains shipment data, order data, and product data in text and barcode format(s).
Delivery Note or Packing Slip	Also known as a pick list, packing list, packing slip or delivery note. This document contains shipment data, order data, and product data in text and barcode format(s).
Product Package or Unit Pack / SPQ	A commercial unit of components or Single Pack Quantity (SPQ). Usually identified with the lowest level package label.
Intermediate Package	Also known as an inner pack. A box, carton or bag or other container used to contain multiple product packages.



	Intermediate packages are not always required or necessary. Marked with an intermediate product label when present.
Shipping Container or External Packaging	The outer container that is sufficiently strong enough to be handled by a freight carrier in the transportation of an order. In a multi-carton shipment, the lead carton must be identified.
Consolidated Orders or Mixed Load	These orders are separate line item orders and/or multiple purchase orders that are combined and placed in one or more shipping container(s).

3. General Requirements

This section describes the general requirements Arrow expects regarding the way products are prepared and protected for delivery to Arrow.

3.1. All shipments to Arrow must be notified and agreed upon upfront.

3.1.1. Carriers will be able to request date and time for the drop-off.

3.1.2. The number of pallets per Arrow Supplier must be shared upfront.

3.1.2.1. EMEA region: Arrow will use a dedicated Arrow Reference Number (ARN) to support transportation and arrival coordination. All deliveries within the EMEA region require an ARN. The ARN is a unique number for the specific shipment that cannot be guessed.

3.1.2.2. Arrow confirms the date and timeslot the truck is scheduled for unloading.

3.1.2.3. Upon delivery arrival the ARN is verified. Without a valid ARN the shipment will be refused.

3.1.2.4. Should ARN become a requirement in other Arrow regions, suppliers will be advised of the ARN requirements through formal communication.

3.2. Arrow requires suppliers to package and ship products as outlined below:

3.2.1. Products must be safely packed to avoid any damage caused by physical influence during normal transport, handling, and storage.

3.2.2. Industry Standards applicable for the type of products shipped must be maintained.

3.2.2.1. Products that are susceptible to ESD must be packaged according to Industry ESD Standards.

3.2.2.2. Moisture Sensitive (MSL) products must be packaged according to Industry Standards.

3.2.3. Legal and Safety Standards that are common in logistics must be maintained.

3.3. To handle order lines which are booked, split, and stored separately on various Date Codes and Single Pack Quantities (SPQs) inside the shipment:

3.3.1. For each single order always ship single Date and Batch Code lots.

3.3.2. SPQs must be uniform within one single delivery and future deliveries.



- 3.3.3. Maximum Date Code of products must be less than 24 months unless the Service Level Agreement (SLA) between Arrow and the supplier states else.
- 3.3.4. No more than two date codes per reel. No more than one date code per reel on military product.
- 3.3.5. Serial numbers of products must be visible on the outside of the unit packs.
 - 3.3.5.1. Codes must be human and machine readable.
 - 3.3.5.2. Summary lists on the outside of shipping boxes and Delivery Notes and/or Packing Slips are required.
- 3.3.6. Multiple Date, Batch and Serial Codes for one Purchase Order should be listed accordingly on the Delivery Notes and/or Packing Slips.
- 3.3.7. Total quantity must be specified on each level of packaging. This includes identifying the total line item quantity included on the Delivery Note / Packing Slip.
- 3.4. Shipments must include a summary document and 2D content labels on shipping containers. Containing all contents of the shipping carton or complete shipment, details must include at minimum:
 - 3.4.1. Purchase Order Number and Purchase Order line.
 - 3.4.2. Manufacturing Part Number.
 - 3.4.3. Total PO Line Quantity.
- 3.5. Labels on the different levels of packaging must include machine and human readable data. Consistent barcode prefixes related to all production sites must be maintained. Review the related section in this document for more detailed information. Labels with barcodes and human readable text must be present on the various levels of shipping and product packaging. The following levels are to be considered:
 - 3.5.1. Unit Packs: smallest packaging that can be labelled, often referred as being the SPQ.
 - 3.5.2. Inner Packs: packages that hold one or more Unit Packages
 - 3.5.3. Shipping Containers: cartons that contain multiple Inner Packs commonly used for shipping.
 - 3.5.4. Box Containers or Pallets: pallets or Large carton boxes containing multiple Shipping Containers on it.
- 3.6. 2D Labels are to be pasted on the outer sides of the cartons. Cartons must be stacked in such way the labels face outward.
- 3.7. Delivery Note and/or Packing Slip documents and its contents will have human readable information, review the related chapter in this document for more details.
- 3.8. Delivery Note and/or Packing Slip documents must be securely attached to the shipping cartons for easy and defect free handling
 - 3.8.1. Products shipped inside a pallet-box or gaylord carton must have the Delivery Note and/or Packing Slip attached to the products in a document pouch.



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- 3.8.2. Products shipped with Shipping Carton Boxes must have a Delivery Note and/or Packing Slip in a pouch attached to the outside of the carton.
 - 3.9. Delivery Note and/or Packing Slip documents of incoming shipments must be sent digitally to Arrow. Electronic documentation is to be forwarded by email to the destination region based on the email addresses below:
 - 3.9.1. EMEA region: Deliverynote@arrowdlc.com.
 - 3.9.2. APAC region: Deliverynote.ap@arrow.com.
 - 3.9.3. Documents must be in PDF or another agreed format.
 - 3.9.4. Filename of the document must be the Delivery Note or Packing Slip Number itself.
 - 3.10. ASN Advanced Shipping Notice (ASN) Requirements: as part of Arrow's global vision ASN is required for all shipments. Arrow will work with all suppliers to drive ASN for all shipments.
 - 3.10.1. EDI transactions are according the EDIFACT DESADV D97A standard or an ASN template provided by Arrow B2B team.
 - 3.10.2. If a supplier opts to use a 3rd party provider for EDI or distribution (3PL), it is still the supplier's responsibility to ensure compliance by meeting all Arrow requirements.
 - 3.10.3. The supplier will be held accountable for any ASN, labeling issues, or shipping discrepancies. Best practice for accomplishing this is via incorporating a 100% Intermediate Pack Label verification (e.g. Barcode scanning) with the ASN.
 - 3.10.4. Any updates and transitions that impact ASN and labels must be properly communicated (including proposed effective dates if applicable). Every shipment to Arrow must have an ASN.



4. Elements

4.1. Field Definitions: the following fields are used on product and shipment labeling. The data identifier and a brief definition are provided for each.

Description / Data Identifier	Definition
Address Information	Supplier's and Customer's names and addresses.
Ship Date(optional) Data Identifier 6D	Date that shipment was shipped. Optional on the Delivery Note or Packing Slip
Customer Part Number (optional) Data Identifier P	A unique part number assigned by Customer. May be a required field if indicated by Customer
Supplier Part Number Data Identifier 1P	Also known as Manufacturer or Vendor Part Number. Supplier assigned part number. Should reflect the supplier's part number as shown on the Purchase Order.
Quantity Data Identifier Q	The quantity of items being sent in each package. The quantity on each label should represent only the number of items contained in the package the label is affixed to.
Purchase Order Number Data Identifier K	Purchase order number that has been assigned by Customer.
PO Line Number Data Identifier 4K	Line number of items from Purchase order.
Date Code Data Identifiers 9D, 10D	Significance of date to be established by supplier and communicated to customer. This is often the manufacture date. Data Identifiers 9D and 10D are always used in conjunction with the date format of YYWW (last two digits of year and two-digit week number 01-53). 9D and 10D are the preferred data identifiers. This field should not be left blank. If no date code is used for a part, this field should be populated with N/T to indicate the product is Not Traceable by this data field.
Lot Code Data Identifier 1T	Traceability number assigned to a batch or group of items. Required if product is tracked with a lot code. Maximum field length is 20 characters. This field should not be left blank. If no lot code is used for a part, this field should be populated with N/T to indicate the product is Not Traceable by this data field.
Country of Origin Data Identifier 4L	Country where part was manufactured (or assembled when there is another country of diffusion). Data requires the two-character code from ISO 3166 standard country code list. Only 1 Country of Origin allowed on documentation and labels (must be identical).
Package ID Data Identifier 3S, 4S, 5S	A unique alphanumeric number assigned by the supplier to a carton or package. 3S - Package ID for Inner Pack when part of a Mixed Logistics Carton 4S - Package ID for Logistics Carton with like items 5S - Package ID for Logistics Carton with mixed items
Delivery Note or Packing Slip Number	A unique alphanumeric number assigned by the supplier to each shipment or Delivery Note or Packing Slip.



Data Identifier 11K	
Serial Number (if available) Data Identifier S	A unique alphanumeric number assigned by the supplier to each product.
BIN Code (if available) Data Identifier 33P	Code for sorting and classifying LEDs. Use when applicable.
Company Name/Logo (optional)	Logo, name, or other identifying mark for the manufacturer. Used on the Product and Intermediate Product label formats.
Package Count Data Identifier 13Q	Sequential count of packages out of the total number of packages in a shipment. For example, "3/10" would identify the third carton in a shipment of ten cartons. If not incorporated on label, can be printed directly on cartons.
Revision Number (optional) Data Identifier 2P	An alphanumeric string assigned by the supplier to distinguish from one closely related design variation to another. Used as needed and when applicable.

4.2. Field Requirements: the Label Data Tables in Section 4.3 list several fields as "As Required" and "When Applicable". See *legend after table*. Each of these must be carefully evaluated when designing and implementing the labels.

4.3. Data Characteristics – Chart. The following chart lists all potential data fields and compares their use across the different barcode label formats.

Field Name	Data Identifier	Max Field Length	Product Label	Intermediate Label	Logistic Label	Packing Slip / Delivery Note	Specific Requirements
Ship From	n/a				*	*	Supplier name and address
Ship To	n/a				*	*	Customer name and address
Customer PO	K	25		o	•	•	Customer assigned purchase order number
Package ID (Intermediate Label)	3S	25		o			Unique alphanumeric number assigned by supplier 3S – Package ID for Inner Pack when part of a mixed Logistic Carton. Always used in conjunction with a mixed logistic label with a 5S data identifier for Package ID.
Package ID (Logistic Label)	4S, 5S	25			•		Unique alphanumeric number assigned by supplier 4S – Package ID for Logistic Carton with like items 5S – Package ID for Logistic Carton with mixed items
Packing List Number / Delivery Note Number	11K	25				*	Unique alphanumeric number assigned by supplier 11k Packing list number
Ship Date	6D	8			o	*	Ship date in format YYYYMMDD
Customer Part Number	P	40	o	o	o	*	Customer assigned part number – Optional based on agreements between Distribution and Supplier
Supplier Part Number	1P	40	•	•	•	*	Supplier assigned part number
Customer PO Line	4K	5			o	•	Line item number from PO. Required on Logistic Label when used on back of Packing Slip.
Quantity	Q	9	•	•	•	*	Quantity of product
Date Code	9D, 10D	7	•	•	•	*	9D – YYWW, 10D – YYWW (preferred) if no date code is used for a particular part, this field should be populated with N/T to indicate the product is Not Traceable by this data field.
Lot Code	1T	20	•	•	•	*	Traceability number assigned to a batch or group of items. If no lot code is used for a particular part, this field should be populated with N/T to indicate the product is Not Traceable by this data field.
Country of Origin	4L	2	•	•	•	*	Country where part was manufactured. Two-letter code from ISO 3166 country code list.



Serial Number	S	25	o				Unique alphanumeric value assigned to each part by manufacturer
BIN Code	33P	35	o	o	o	*	Code for sorting and classifying LEDs. Use when applicable
Company Logo	n/a		-	-			Logo, name, or other identifying mark for manufacturer
Package Count	13Q				o	*	Sequential carton count in format "##/" or "# of #"
Revision Number	2P	6	-	-			Alphanumeric string assigned by the supplier to distinguish from one closely related design variation to another. Use as required or when applicable.
ECCN	n/a					-	Use as required or when applicable
Weight	7Q					*	Use as required or when applicable
Manufacturer	1V					-	Use as required or when applicable
RoHS/CC	E		-	-	-	-	Use as required or when applicable. May be encoded in barcode from.
Reel ID	n/a					-	Use as required or when applicable
Moisture Sensitive Level	n/a		-	-	-	-	Use as required or when applicable
Moisture Barrier Bag Seal Date	n/a		-	-	-	-	Use as required or when applicable

- Required in barcode and text
- o Use as required or when applicable in barcode and text
- * Required in text
- Use as required or when applicable in text

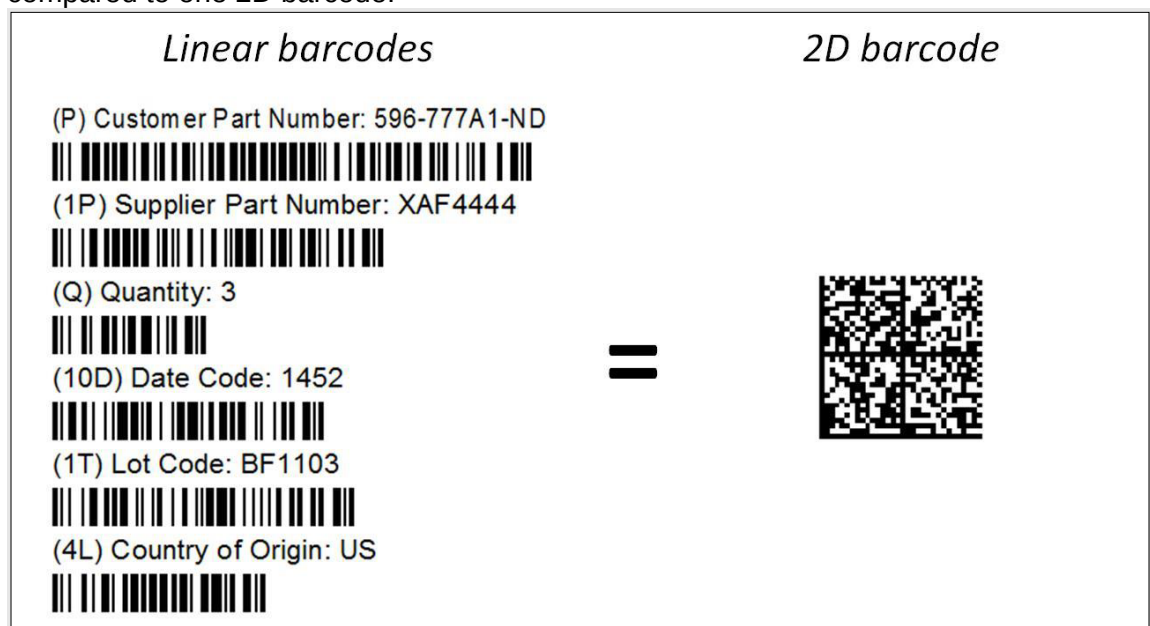
5. Barcode Symbology

5.1. 2D and Linear Barcodes

5.1.1. 2D barcodes can encode a great amount of data in a small space and require only one scan to capture all data elements. Linear barcodes require separate scans for each symbol on a label and take up more space.

5.1.2. To accommodate different scanning applications, suppliers are required to include 2D barcodes on their product, intermediate product, and logistic label. The corresponding human readable text is also required for each included data element.

5.1.3. The following diagram shows the same data encoded in multiple linear barcodes compared to one 2D barcode.



5.2. Acceptable 2D Barcode Symbology: the two types of acceptable 2D barcodes are PDF417 and Data Matrix, or as agreed between Arrow and supplier.

5.2.1. Data Matrix

Format	Header	Separator	Trailer
06	[]><RS>06<GS>	<GS>	<RS><EOT>

Format 06 Example

[]><RS>06<GS>17V98897<GS>1P4L0014-163B<GS>SSA10197<RS><EOT>

5.2.2 2D Examples – PDF417 & Data Matrix



PDF417



Data Matrix

For more detailed information on 2D barcode specifications, please refer to EIGP Labelling specification for Product and Shipment identification in the Electronics Industry – 2D Barcode.

5.3 Should 1D barcodes be used: acceptable Linear Barcode Symbology

The acceptable symbology is Code 128. Linear symbols must meet the minimum dimensional and print quality guidelines as defined in this specification.

1D Example – Code 128



Code 128

5.4 Linear Barcode Dimensions

5.4.1 Narrow Element – X-Dimension:

The X-dimension of a barcode is a measure of the narrow elements (the bars and spaces) that make up the barcode. The X-dimension, along with the data encoded, determines the overall width of the barcode symbol.

The minimum X-dimension for Code 128 barcode is 9.5 mils (0.0095"/0.24 mm).

5.4.2 Barcode Height

The target height for linear barcodes is 0.375"/0.95 cm. The minimum height must not be less than 0.25"/0.64 cm.



5.4.3 Linear Barcode Quiet Zones

For optimum scanning, a symbol's leading and trailing clear area known as the quiet zone must be at least 10 times the width of the narrowest element or 0.25" (0.64 cm), whichever is greater.

5.5 Linear Barcode Print Quality

A minimum ISO/ANSI print quality grade of **1.5/5/660 (C)** is required for the Code 128 barcode.

These components make up the **1.5/5/660 (C)** print grade:

1.5 – The ISO/ANSI Print Quality grade. Equivalent to a "C" grade.

5 – The aperture of the reading device in mils.

660 – The light wavelength of the reading device in nanometers.

(C) – The letter equivalent of the print quality grade.

5.6 Linear Barcode Data Structure

The data encoded in the linear barcodes must follow this format:

<Data Identifier><Data String>

For a carton with 12 items, the following would be encoded in the Quantity barcode:

<Data Identifier>	<Data String>
Q	12

No spaces can be encoded between the data identifier and data string.

5.7 Linear Barcode Human Readable Text

The linear barcode must be accompanied by a text field called the human readable text. This text is to be placed above the barcode symbol and displays the data encoded in the barcode.

The following components make up the human readable text:

Data identifier – displayed in parentheses.

Field name – description of the data.

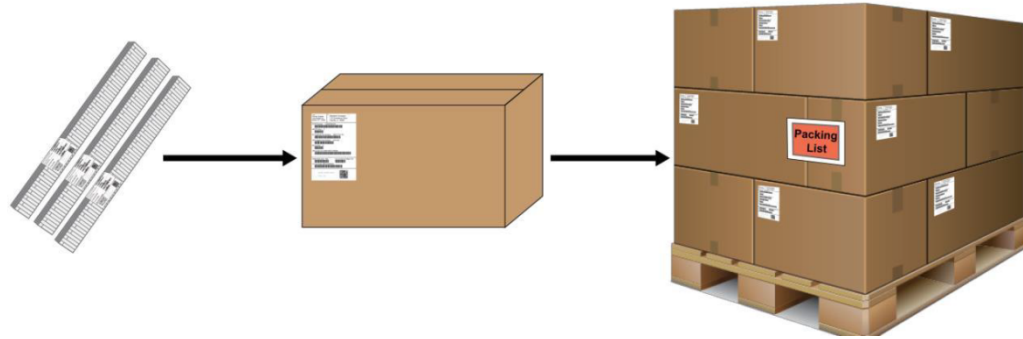
Data string – the actual data string encoded in the barcode.

For example, a Quantity barcode for a carton with 12 items would look like

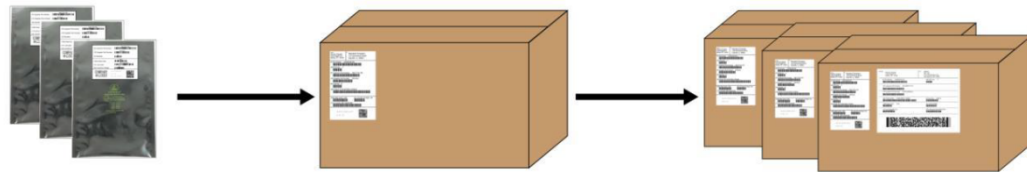


6. Label Formats

6.1. Shipment Examples: due to the variance in product types and supply chains, products are packed and shipped in a multitude of configurations. The following are a few common examples. Refer to Appendix A for additional label placement examples by package type.



Example shipment 1 – tubes containing product with product labels, a carton with a logistic label, and a pallet with a Delivery Note or Packing Slip.

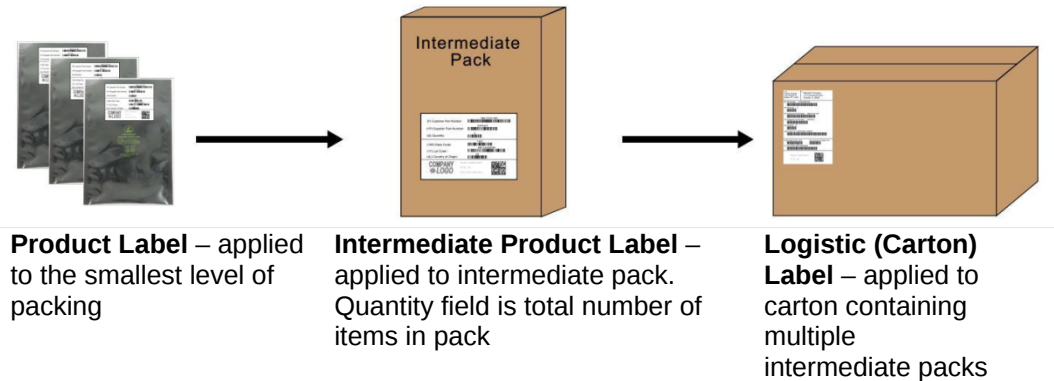


Example shipment 2 – bags containing product with product labels, a carton with a logistic label, and the full shipment (three cartons, all with logistic labels) with the lead carton marked with a Delivery Note or Packing Slip.



Example shipment 3 – product on reels with product labels, a carton with a logistic label, and the full shipment with the lead carton marked with a Delivery Note or Packing Slip.

6.2. Explanation of Intermediate Product Labels: product labels are required at the smallest level of packaging, and on any intermediate packs that are used. The quantity field must reflect the total number of items for that level of packaging:



6.3. Quantity Field: the quantity field represents the number or items contained for each level of packaging.

6.3.1. For the product label, the quantity field is determined by the number of items contained in each ordering unit.

6.3.2. For the intermediate product label, the quantity field is the total number of items in the intermediate carton or inner pack.

6.3.3. For the logistic label, the quantity field is determined by the total number of items contained in the carton or package that the logistic label is applied to.

6.3.4. For the Delivery Note or Packing Slip, the quantity field is determined by the total number of items on the shipment for each line of the Delivery Note or Packing Slip.

Example:

- A product pack contains three each/items. The quantity field on the product label will be “3”
- 10 of that products are packed into a carton. The quantity field on the logistic label will be “30”. (10 products each containing 3 items)
- 15 cartons of product are shipped together. The quantity field on the Delivery Note or Packing Slip will be “450”. (15 cartons each containing 30 items)

6.4 Mixed Fields on Labels: these rules apply only to Logistic Cartons and Intermediate Product Cartons that contain the same item or part number with different lot codes or date codes:

6.4.1 **Date Code:** use the oldest date code followed by an “M” (for MIXED or MULTIPLE). Alternatively, use the term “MIXED” in place of a date code. For example, if Data Identifier “9D” was used, and the oldest date code was “1540”, acceptable strings would be “9D1540M” or “9DMIXED”. If no date codes are used, this field should be populated with N/T to indicate the product is Not Traceable by this data field.

6.4.2 **Lot Code:** use the term “MIXED” or “MULTI” in place of a lot code. Alternatively, leave the field blank. For example, “1TMIXED”, “1TMULTI”, and “1T” are acceptable strings to indicate mixed lot codes. If no lot codes are used, this field should be populated with N/T to indicate the product is Not Traceable by this data field.



Example:

- This graphic is an example of the label text for mixed Lot Code and Date Code fields. This is used for cartons that contain the same product or part with different Date Code or Lot Codes.

(10D) Date Code:	MIXED
(1T) Lot Code:	MIXED
(4L) Country of Origin:	US

6.5 Mixed Fields on Delivery Notes and/or Packing Slips: the Delivery Notes and/or Packing Slips for shipments that contain mixed products must contain lines for each product or similar grouping. For example, if there is a shipment for Product A comprised of some items with Lot Code 1 and some items with Lot Code 2, there should be two lines on the Pack Slip for Product A, one with Lot Code 1 and one with Lot Code 2. For the Date Code and Lot Code fields on the Pack Slip, there are special exceptions if they cannot be listed out:






6.5.1 **Date Code:** If it is not possible to list each Date Code grouping as a separate line, use the oldest date code followed by an "M" (for MIXED or MULTIPLE).


Alternatively, use the term "MIXED" in place of a date code. For example, if Data Identifier "10D" was used, and the oldest date code was "1531", acceptable strings would be "10D1531M" or "10DMIXED". If no date codes are used, this field should be populated with N/T to indicate the product is Not Traceable by this data field.

6.5.2 **Lot Code:** if it is not possible to list each Lot Code grouping on separate lines, use the term "MIXED" or "MULTI" in place of a lot code. Alternatively, leave the field blank. For example, "1TMIXED", "1TMULTI", and "1T" are acceptable strings to indicate mixed lot codes. If no date codes are used, this field should be populated with N/T to indicate the product is Not Traceable by this data field.








6.6 Product Label Format: the product label, with both 2D and 1D barcodes.


(1P) Supplier Part Number:	
(Q) Quantity:	
(10D) Date Code:	
(1T) Lot Code:	
(4L) Country of Origin:	



Product Label

6.7 Intermediate Label Format: the Intermediate Product Label, with both 2D and 1D barcodes.


(1P) Supplier Part Number:	
(Q) Quantity:	
(10D) Date Code:	
(1T) Lot Code:	
(4L) Country of Origin:	



Intermediate Label



- 6.8 Logistics Label: Also known as a carton label, the Logistics Label, with both 2D and 1D barcodes.

FROM Premier Supplier 1234 Niagara St. Buffalo, NY 44556	TO Standard Company 110 Commerce Drive Cityville, IL 60601
(K) PO Number: 1234567891234 	
(1P) Supplier Part Number: DEF3R3H2055 	
(Q) Quantity: 50 	
(4S) Package ID: 81664789011239840 	
(10D) Date Code: 1452 	(4L) Country of Origin: US 
(1T) Lot Code: ABC123456789 	
	

Logistics Label



- 6.9 Mixed Load Logistics Labels: For cartons that contain different items, a “Mixed Load” label may be used. When this label is used, any intermediate packs must have labels with Package IDs using data identifier “3S”.

FROM Premier Supplier 1234 Niagara St. Buffalo, NY 44556	TO Standard Company 110 Commerce Drive Cityville, IL 60601
(5S) Package ID: 81664789011239840 	
<h1>MIXED LOAD</h1>	
(13Q) Package Count: 1 of 2	(7Q) Weight: 50 lbs.

Mixed Logistics Label

7. Delivery Note, Packing Slip, Content List, Test Document and CofC

- 7.1. Arrow only accepts Delivery Notes and/or Packing Slips which include both barcoded and human readable information. They must include a master 2D barcode for each line shipped that includes total shipment quantity. For suppliers not ready to support 2D Barcode Label and ASN on this standard, Arrow will allow more information in Delivery Note and/or Packing Slip with barcode in short term *if that supplier can provide a clear plan to bridge the gaps*.

- 7.1.1. EMEA region: Delivery Notes and/or Packing Slips shall include only human readable information except for Packing List Number that shall also have a 1D barcode.



7.2. For consolidated shipments containing multiple Purchase Orders, use separate Delivery Note or Packing Slip documents for each PO and PO-line.

7.3. The document must be attached to the product to-be-delivered

7.4. Documents

7.4.1. To receive the products a Delivery Note or a Packing Slip, a CofC statement and when applicable Test Document are required. Without a hardcopy of the documents the products cannot be received.

7.4.2. When the PO is shipped in one or more dedicated cartons the Documents must be on the outside in a document pouch.

7.4.3. When goods are shipped in a collect carton or box container the Delivery Note or Packing Slip must be attached to the goods in a document pouch.

7.5. Shipping Contents List

7.5.1. A hardcopy paper document, or label, containing all PO lines in the shipment must be present. For each PO include the appropriate MPN (or CPN/COP as required and agreed in advance) and QTY.

7.6. CofC and Test Documents

7.6.1. A Certificate of Compliance statement must be present for all goods and can be included on the Delivery Note or Packing Slip or provided digitally.

7.6.2. When the CofC-statement is printed on a separate document, that document must be included with the Delivery Note or Packing Slip document attached to the product carton with pouch or provided digitally.

7.7. Delivery Note and/or Packing Slip Placement (see Appendix B for detail).

7.7.1. Delivery Note or Packing Slip placement examples. A Delivery Note or Packing Slip must accompany each shipment. The examples below show acceptable Delivery Notes and/or Packing Slips on different shipment types:

8. Pallet Packaging

8.1. All shipments should adhere to the most current revision of ISO780 specification for package marking.

8.1.1. APAC region: products must be shipped on undamaged, ISO recognized pallets. EPAL size pallets (1200 x 800 or 1200 x 1000 mm L x W) are preferred.

8.1.2. EMEA region: products must be shipped on undamaged ISO Euro/EPAL pallets. Euro/EPAL pallet (1200mm x 800mm L x W) is preferred.

8.1.3. NA region: products must be shipped on undamaged, ISO/GMA recognized pallets. NA pallet (1219 x 1016 mm, 40 x 48 in L x W) is preferred.

8.2. Materials: all additional packaging materials for protection of the goods must be made of fully recyclable material. Materials like cardboard, paper and wood are acceptable.

Materials like wood wool, Styrofoam, Styrofoam chips, newsprint, etc. are not acceptable, as they do not provide enough safety and stability of the loaded units.

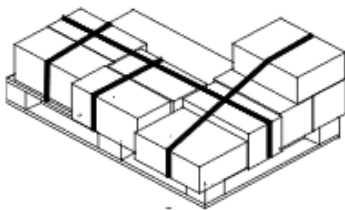
8.3. Protection and Stacking

8.3.1. The package on the pallet must not protrude the pallet border

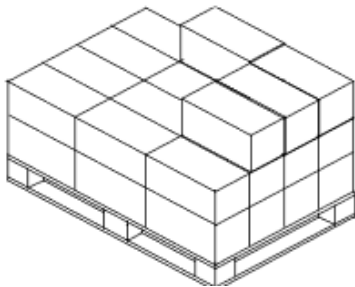
8.3.2. The loading unit must be strapped in both directions. This must be done through the pallet bottom.

8.3.3. Before strapping, the package units must be protected through an overlay edge protection angle made of paperboard, plastics, or steel plate (rounded corners)

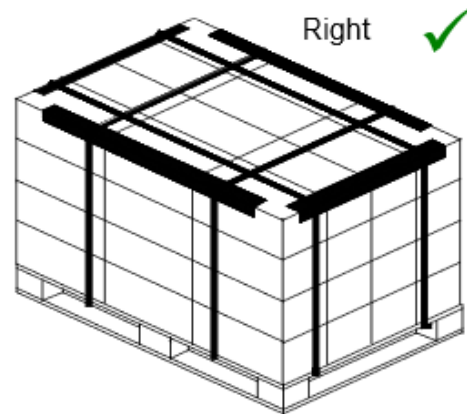
8.3.4. Loading units must always form a closed cover to ensure the stacking of several loading units on top of each other (if applicable).



Wrong **X**



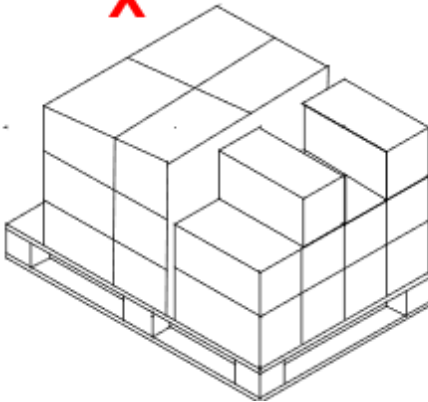
Wrong **X**



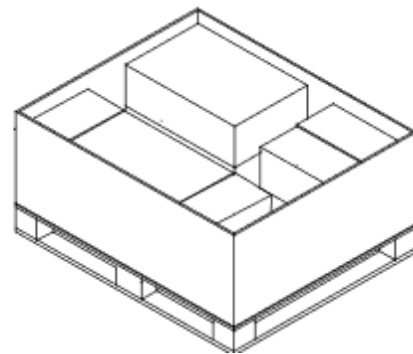
Right **✓**

8.3.5. Whenever possible, the packages should have length (L) x width (W) that fits both preferred pallets' footprint (e.g. 395 x 295mm, 595 x 395 mm). If several packages of different sizes are shipped on one pallet, a corrugated paper container will have to be used as covering box. The empty spaces between the packages must be filled with appropriate filling material, e.g. crinkled cardboard paper or air bag.

Wrong

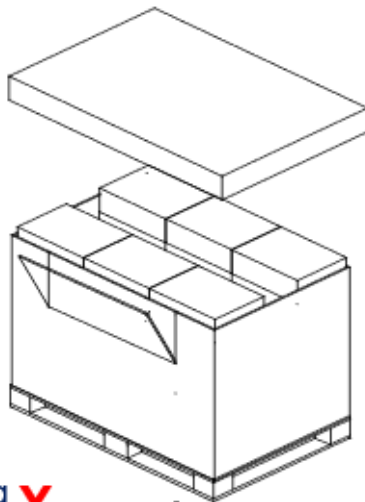


Right

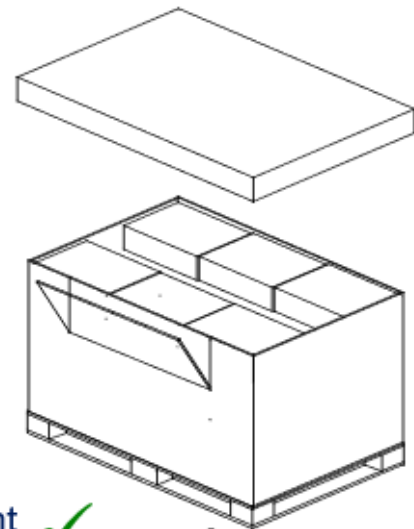


8.3.6. It is important that the packages do not protrude the container border. Thus, the pressure can be absorbed while stacking containers. (if applicable).

Wrong



Right



8.4. Pallet Exchange: The exchange of pallets is possible based on agreements made with the country of receipt. Only undamaged pallets are exchanged.

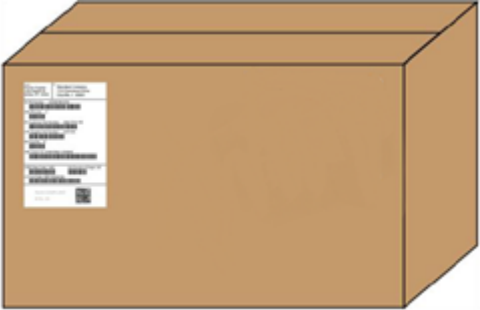
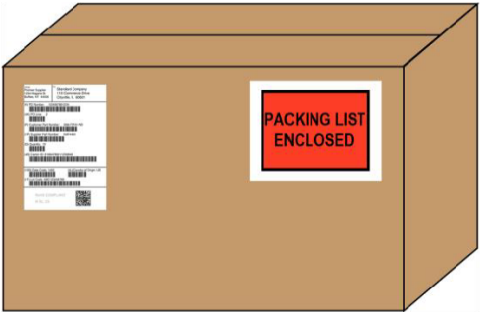




Appendix A - Label Placement Examples

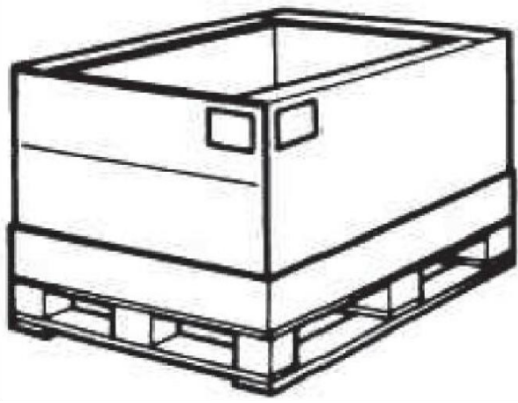
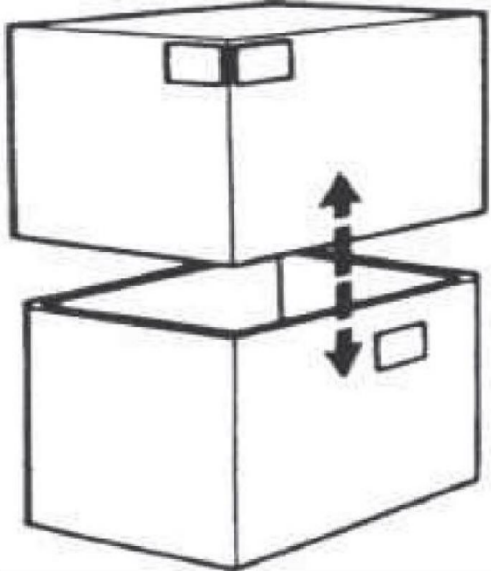
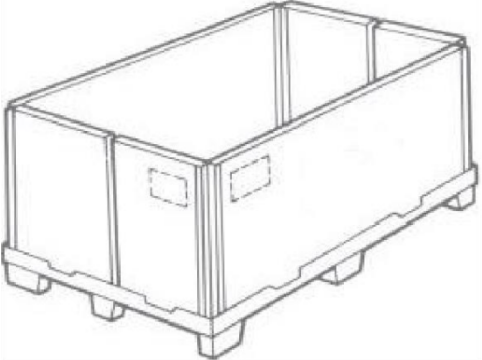
This section presents label placement examples.

	<p>Product Label</p> <p>Cartons under 4" (10cm) wide – labels should be placed on the top panel.</p> <p>Cartons 4" (10cm) wide and greater – labels should be placed on the “front” side panel.</p>
	<p>Reel</p> <p>Label to be placed on flat surface of reel, not impeding center spindle hole or any cutouts on the reel surface.</p>
	<p>Moisture Barrier Bag</p> <p>Label to be placed on flat surface of reel, not impeding the pre-printed instruction on the Moisture Barrier Bag.</p>
	<p>Tube</p> <p>If label must be wrapped to fit, do not wrap 2D barcode over any edges. Entire 2D barcode must be placed on flat surface.</p>



	<p>Box or Carton</p>
	<p>Delivery Note or Packing Slip on Carton, in pouch</p> <p>Delivery Notes or/and Packing Slips may be placed in a plastic pouch attached to a carton.</p> <p>For multiple carton shipments, the Delivery Note or Packing Slip must be on the lead carton. The carton must be identified as the lead carton and must indicate that the Delivery Note or Packing Slip is attached.</p>
	<p>Delivery Note or/and Packing Slip in Carton</p> <p>Delivery Note or Packing Slip may be placed inside a carton. Carton must indicate that a Delivery Note or Packing Slip is enclosed.</p> <p>For multiple carton shipments, the Delivery Note or Packing Slip must be in the lead carton. The carton must be identified as the lead carton and must indicate that the Delivery Note or Packing Slip is enclosed.</p>
	<p>Cartons on Pallet</p> <p>Each carton shall be individually labeled as described above. Cartons should be arranged on the pallet so that carton labels are visible.</p> <p>An additional label should be applied to the pallet, with data representing the entire pallet contents. A Delivery Note or Packing Slip should be placed in a plastic pouch or in a clearly labeled lead carton.</p>




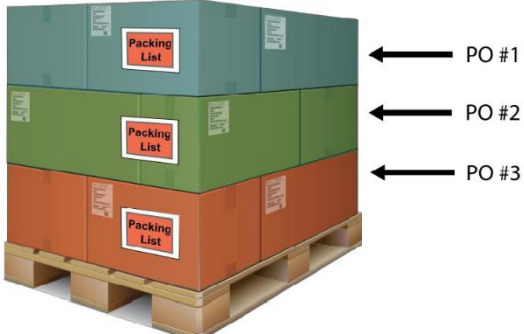


	<p>Pallet Box</p> <p>Identical labels shall be located on two adjacent sides or as agreed to by the trading partners (wrap around label is acceptable).</p>
	<p>Telescopic or Set-Up Containers</p> <p>Identical labels shall be located on two adjacent sides of the outer box or as agreed to by the trading partners. Some applications may also require identification of the inner box (wrap around label is acceptable).</p>
	<p>Collapsible Sleeve Pack</p> <p>Identical labels shall be located on two adjacent sides in designated locations or as agreed to by the trading partners.</p>

Appendix B - Delivery Note and Packing Slip Placement Examples



This section presents acceptable Delivery Notes and/or Packing Slips on different shipment types.

	<p>Single Carton</p> <p>The Delivery Note or Packing Slip can be placed in a plastic pouch attached to the carton or enclosed in the carton.</p>
	<p>Multiple Cartons</p> <p>The Delivery Note or Packing Slip can be attached to the lead carton or enclosed in the lead carton.</p>
	<p>Palletized shipment, single PO</p> <p>The Delivery Note or Packing Slip can be attached to the pallet in a pouch or can be enclosed in the lead carton. The carton must be identified as containing the Delivery Note or Packing Slip.</p>
	<p>Palletized shipment, multiple PO</p> <p>The cartons for each PO must be grouped together and distinct from other Pos. A separate Delivery Note or Packing Slip for each PO is preferred.</p>