

GENERAL ATOMICS AERONAUTICAL SYSTEMS, INC. SUPPLIER BARCODE PACKAGING SPECIFICATION

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Prepared By:

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Revision History

Revision	Date	Description
A	04/18/2016	Initial release
В	05/03/2016	UII example updated
С	11/7/2019	Removed reference to Styrofoam peanuts, updated website link, and
		added Original Equipment Manufacturer's Part Number,
		Manufacturer Name, and Cage Code to data fields/barcode
		<u>requirements</u>

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1. SCOPE

Barcoding of labels and associated documentation of material packaged and shipped from suppliers is necessary to achieve requisite levels of speed and quality in General Atomics Aeronautical Systems, Inc. (GA-ASI) receiving transactions. This document details the specifications and requirements necessary to implement barcoded labels and packing slips for delivery of purchased products and materials to GA-ASI.

GA-ASI Terms and Conditions are available at http://www.ga.com/terms-and-conditions

2. GENERAL INFORMATION

This specification shall be used to provide guidance to GA-ASI suppliers for packaging and marking of shipped items under contract.

<u>NOTE</u>: This document does not supersede any contract or purchase order requirements including specific packaging or labeling instructions for individual products.

2.1 SUPPLIER RESPONSIBILITIES

It is the responsibility of the supplier to label the product as identified in this document. The completed package shall provide for safe delivery of the product, including adequate protection against damage and deterioration during shipping, handling, and storage at the final destination.

Prior to a supplier's first shipment that is compliant with this specification, the supplier must submit their barcoded label(s) and packing slip for pre-approval in writing by a GA-ASI Buyer Representative. This is a one-time requirement per supplier.

The transition date to be compliant with this specification will be provided by a GA-ASI Buyer Representative. During the interim period of implementation, if the supplier is unable to provide barcoded labels and associated documentation to meet this specification, a GA-ASI Buyer Representative must grant approval and waiver.

2.2 ADDITIONAL INFORMATION

For general inquiries contact the GA-ASI Barcode Team general mailbox (<u>SM-GA-ASI-Barcode-Team@ga.com</u>) or your GA-ASI Buyer Representative as listed on the GA-ASI Purchase Order. Additional information is available at http://www.ga-asi.com/supplier-quality.

3. KEY SPECIFICATIONS

Topic	Description			
Required Data Fields	Required information for the barcoded packaging label and barcoded packing slip are defined in Appendix A-Required Data Fields & Barcodes. • Material Attributes (as applicable): Revision, Batch, Serial Number, Unique Item Identification (UII), Date of Manufacture (DofM), Shelf Life Expiration Date (SLED), and Heat/Date/Lot Code.			
Types of Barcodes	Supplier may use the following linear, one dimensional (1D) barcodes types.			
Darcoues	Code 39	Code 39, alphanumeric barcode symbology (Regular or Full American Standard Code for Information Interchange (ASCII)		
	Code 128	Code 128, alphanumeric barcode symbology		
Data Fields/ Barcodes Layout	 Each data field and barcode shall have a descriptive title. The readable text for the applicable barcode can be located above, below, left, or right of the barcode symbol. Each readable text and barcode combination shall be separated by vertical and horizontal lines. All barcodes shall have appropriate spacing between one another to ensure they can be clearly distinguished when being interpreted/read by a harcode seemen. 			
Associated Documents: Barcoded Packing Slip	 Associated documentation may include, but is not limited to, the supplier's barcoded packing slip. All associated documentation shall be attached either in a prepackage packing envelop and/or within the shipping container. All barcodes should be interpretable/readable by a barcode scanner and free of any folds, creases, or damage. Ensure paper folding methods do not cause any folds, creases, or damage to the printed barcoded. Common folding methods include (see Appendix C-Associated Documentation Fold Techniques) Z-fold/Tri-fold/Barrel fold Half fold Cross-fold/two (2) Half folds 			

Label Stock	Label stock shall be white in color with readable text & barcodes printed in black. • Label stock type shall be industrial weatherproof thermal transfer labels (polypropylene or polyester).
Label Size	Unless otherwise noted, label size should be 4" x 2", 4" x 4", or 4" x 6".
	• If necessary, the supplier can vary the standard label size as long as all required information and barcodes are included. The label must be preapproved in writing by a GA-ASI Buyer Representative.
Number of Labels	The total number of required labels per purchase order is determined by the following criteria:
	a) Number of purchase order line items: 1 label per line
	b) Number of serialized parts: 1 label per part
	c) Supplier's material packaging methods: 1 label per package
	(e.g. number of packages for one specific purchase order line item)
	NOTE : When item is packed in separate packaging material, the quantity value must accurately reflect the physical quantity.
	Example: Purchase Order with three (3) line items
	Line 10: Material X, Qty: 2 (packed in 1 bag)
	Line 20: Material Y, Qty: 3 (serialized)
	Line 30: Material Z, Qty: 100 (packed in 3 separate bags)
	• Two bags with 25 units and one bag with 50 units
	Supplier is required to provide a total of seven (7) labels
	• <u>Line 10</u> = 1 label (one bag)
	• <u>Line 20</u> = 3 labels (one for each serialized part)
	• <u>Line 30</u> = 3 labels (one for each bag, includes specific quantity)
	NOTE : Barcoded packaging labels are in addition to any carrier specific labels.
Match GA-ASI	Part, Serial Number, and UoM shall match values provided on each GA-ASI PO Line Item.
Purchase Order Data	• Includes all spaces and special characters, this is not limited to dashes (-).
Oruei Data	The quantity must accurately reflect the PO Line Item. Each PO Line Item shall be packaged separately. This includes when the same material is found on different Line Items within the same or separate PO(s).
	• Line 10: Material X, Qty: 10
	• <u>Line 20</u> : Material X, Qty: 25
	<u>DO NOT</u> combine material with a total quantity of 35.
	For "kitted" parts, see Section 4.3 Part Kits.

Label Placement

- All barcodes should be interpretable/readable by a barcode scanner and free of any folds, creases, or damage.
- **<u>DO NOT</u>** use barcoded label to seal a package or shipping container.
- Each label shall be affixed to the packaging of the material and <u>never</u> adhered directly to the part itself.
- Each serialized part requires its own unique barcoded label.
- If multiple purchase orders exist for the same part within the same shipping container, separate labels are required.

Label Placement	Examples	Actions		
Part/ Material	Physically on an exposed or non-packaged portion of the product	 DO NOT affix the barcoded packaging label directly on the part. Supplier may use flash breaker tape that leaves no adhesive residue, see Section 3.1-Flash Breaker Tape Properties 		
Packaging Material	Product is completely enclosed, with no exposed portions: e.g. Bubble wrap, foam sheets/pouches, shrink wrap, tissue paper, poly bags, antistatic bags, etc.	 Affix barcoded packaging label to the outer side of each packaged part. DO NOT pack multiple PO Line Items within the same packaging material. For serialized parts packed within the same packaging material, unpeeled label(s) shall be attached to the packing slip. 		
	Part is exposed: e.g. Air Pillows, Dunnage bags, Instapak, etc. NOTE: Styrofoam peanuts and paper are NOT approved packing materials.	Attach unpeeled barcoded packaging label(s) to the packing slip. • If part does not have a shipping container (e.g. raw material, sheet metal, etc.) • Attach unpeeled barcoded packaging label(s) to the packing slip. • Supplier may use a flash breaker tape that leaves no adhesive residue, see Section 3.1-Flash Breaker Tape Properties		
Shipping Container	Cardboard boxes, mailers, insulated shippers, envelopes, tubes, etc.	DO NOT affix the barcoded packaging label directly on the shipping container.		
Commercial Off-The- Shelf (COTS) Part	Electronic components, rotary devices, chip capacitors, etc.	Attach unpeeled barcoded packaging label(s) to the packing slip. DO NOT affix the barcoded packaging label directly on the COTS part or packaging. If COTS part is repackaged by supplier, follow above label placement standards.		
Cargo Containers/ Pallets	Wood pallets, flat racks, tunnel container, etc.	DO NOT affix the barcoded packaging label directly on the cargo container or pallet.		

3.1 FLASH BREAKER TAPE PROPERTIES (BLUE TAPE)

The tape must be constructed of pressure sensitive silicone adhesive and polyester film coated backing. The tape must be easily removed and **leave no adhesive residue**. Polyester film is solvent, heat, abrasion, and shrink resistant. Silicone adhesive is very heat resistant allowing its use in high temperature operations. Silicone adhesive removes cleanly from many surfaces. The blue color makes tape placement obvious for both application and removal.

See acceptable tape properties below. (Example: Insulect P00721)

Typical Properties	Value
Backing	Polyester
Adhesive	Silicone
Color	Blue
Adhesive Thickness (inch)	0.0008 to 0.002
Total Thickness (inch)	0.0018 to 0.003
Adhesion to Steel (ounces/inch)	13 to 25
Operating Temperature (Fahrenheit)	-100° to 400° F
Elongation at Break	83% to 100%

3.2 DROP SHIPPING

It is the supplier's responsibility to ensure all defined specifications within this document are applied to material that are drop shipped. This is the case where the supplier transfers order(s) and shipment details to either the manufacturer or another supplier, who then ships the goods directly to GA-ASI.

4. BARCODE REQUIREMENTS

4.1 LABELING & MARKING REQUIREMENTS

GA-ASI requires that **ALL SUPPLIERS** implement barcoded labels and associated documentation. Barcoding increases efficiency and reduces manual labor, errors, and costs within the supply chain process. In addition, GA-ASI is implementing a material tracking program to meet customer requirements and further expand supplier quality within our products sold. This requires that all suppliers that ship product to GA-ASI provide barcoded labels and associated documentation.

4.2 REQUIRED DATA FIELDS

All required data fields, with their applicable barcodes (1D examples) are listed in **Appendix A-Required Data Fields & Barcodes.**

The examples provided in this document are meant to provide a representative layout only. The font types, font sizes, lines, and barcodes are used for example purposes only and do not represent specific layout requirements.

4.3 PART KITS

For a collection of parts that are included in a kit for a specific product, the barcoded packaging label on the "Kitted" parts' package should identify the part number of the kit. The contents of packages containing "Kitted" parts shall be identified either by inserting a listing of the "Kitted" parts within the packaging or by including the list on the associated documentation (i.e. Bill of Materials, pick list). The list shall include the part number, description of each component, material attributes info (if applicable), quantity, and UoM required for a single kit.

NOTE: Suppliers shall deliver complete kits with all required components present. Each kit to be individually packaged and marked as a discrete kit, when applicable.

5. SHIPMENT NONCONFORMANCES

At the discretion of GA-ASI, failure to meet any of the foregoing requirements, or those specified on supplementary drawings may be sufficient cause for rejection of shipment. Rejections may result in return of product to the supplier and/or request for immediate shipment of replacements at the supplier's expense. Rejections may impact the suppliers' rating, if applicable.

6. **DEVIATIONS**

GA-ASI will only accept pre-approved labels and associated documentation which contain all of the required data fields and barcodes. Any deviations from the specified requirements which interfere with supplier's standard practices shall be submitted to the GA-ASI Barcode Team general mailbox (SM-GA-ASI-Barcode-Team@ga.com) or your GA-ASI Buyer Representative for resolution.

7. NOTES

7.1 LIST OF ACRONYMS

The following is an alphabetical listing of acronyms used in this document.

1D One Dimensional

ASCII American Standard Code for Information Interchange

CAGE Commercial and Government Entity code

COTS Commercial Off-The-Shelf

DofM Date of Manufacture

E.G. Example Given

ESD Electrostatic Discharge

ETC Et Cetera

GA-ASI General Atomics Aeronautical Systems, Inc.

MAT # Material Number

PKG Package

PO Purchase Order

QTY Quantity REV Revision

SLED Shelf Life Expiration Date

S/N Serial Number

UII Unique Item Identification

UoM Unit of Measure

APPENDIX A REQUIRED DATA FIELDS & BARCODES

Data Field	Description	Type of Marking	Example Format	Barcoded Packaging Label	Barcoded Packing Slip
Supplier's Packing Slip Number	Supplier's reference number for the shipment/packing slip, when applicable.	Barcode (1D) & Human Readable Text 123456789	123456789		✓
GA-ASI Purchase Order Number (PO)	GA-ASI PO number in which the order was authorized.	Barcode (1D) & Human Readable Text 4500042682	4500042682	✓	✓
GA-ASI Purchase Order Line Item Number (Line)	Line Item of the GA-ASI PO that is being provided.	Barcode (1D) & Human Readable Text	10		✓
Part Number / Material (Mat #)	GA-ASI Part Number referenced in the Line Item of the GA-ASI PO. Part Number shall match value provided on GA-ASI PO Line Item (as applicable). NOTE: If GA-ASI Part Number is not available, enter Supplier's Part Number.	Barcode (1D) & Human Readable Text CT00008497	CT00008497	✓	✓

Data Field	Description	Type of Marking	Example Format	Barcoded Packaging Label	Barcoded Packing Slip
Part Number Revision (Rev)	Revision of the associated GA-ASI Part Number referenced in the Line Item of the GA-ASI PO, when applicable.	Human Readable Text	A		
	NOTE: If GA-ASI Part Number is not available, enter Supplier's Part and Rev.				
Manufacturer Name	The name of the Original Equipment Manufacturer.	Human Readable Text	Company XYZ		
Manufacturer Part Number	Original Equipment Manufacturer's Part Number referenced in the Line Item of the GA-ASI PO. Part Number shall match value provided on GA-ASI PO Line Item (as applicable).	Barcode (1D) & Human Readable Text CSW5550-208-RMS	<u>CSW5550-208-</u> <u>RMS</u>	*	*
CAGE Code	Commercial and Government Entity code is a five-character ID number assigned by the Department of Defense's Defense	Barcode (1D) & Human Readable Text	25965	✓	
	Logistics Agency. Provides a standardized method of identifying a given legal entity at a specific location.	25965			
Part Description	Description of the GA-ASI Part Number referenced in the Line Item of the GA-ASI PO	Human Readable Text	Adapter, Drain Value, Wing Sump Box	✓	*
	NOTE: If GA-ASI Part Number is not available, enter Supplier's Part Description.				

Quantity (Qty)	Numeric quantity of the associated Part Number in the Line Item of the GA-ASI PO. NOTE: When item is packed in separate packaging material, the quantity value must accurately reflect the physical quantity.	Human Readable Number	100	•	
GA-ASI Unit of Measure (UoM)	An abbreviation that defines a definite magnitude of a physical quantity that is used as a standard for measurement of the same physical quantity. UoM shall match value provided on GA-ASI PO Line Item.	Human Readable Text	EA (each)	✓	✓
Data Field	Material with Att Description	ributes – (As Applicable) Type of Marking	Example Format	Barcoded Packaging Label	Barcoded Packing Slip
Batch Number	Identifier, or Manufacturer's Lot Number, of a unique grouping of material.	Barcode (1D) & Human Readable Text R1294351	R1294351	✓	✓
Serial Number (S/N)	Each unique serialized part that is included in the order should have its own unique identifier. Serial Number shall match value provided on GA-ASI PO Line Item (when applicable).	Barcode (1D) & Human Readable Text 4700006155-0001	4700006155-0001	✓	✓
Unique Item Identifier (UII)	A globally unique and unambiguous identifier that distinguishes an item from all other like and unlike items. The UII is derived from a UII data set of one or more data elements.	Human Readable Text	D0YJB5UHK133 80-3HL3210		✓

Date of Manufacture (DofM)	Date on which a product becomes the item it is supposed to be, or as it is described in its specifications.	Barcode (1D) & Human Readable Date	04/04/2014 (MM/DD/YYYY)	✓
Shelf Life Expiration Date (SLED)	Date (length of time) that a commodity may be stored without becoming unfit for use or consumption.	Barcode (1D) & Human Readable Date	05/18/2018 (MM/DD/YYYY)	✓
Heat/Date/Lot Code	Identification number associated to a specific supplier product processing activity.	Barcode (1D) & Human Readable Text 111321	111321	✓

APPENDIX B BARCODED PACKAGING LABEL & PACKING SLIP EXAMPLES

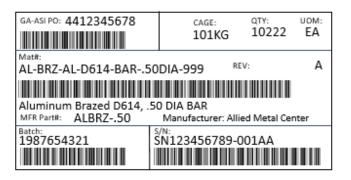


Figure B-1 Sample Barcoded Packaging Label



Figure B-2 Sample Barcoded Packing Slip

APPENDIX C ASSOCIATED DOCUMENTATION FOLD TECHNIQUES



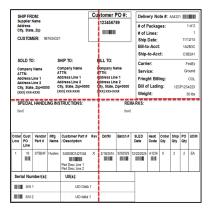


Figure C-1 Sample Associated Documentation Fold Lines

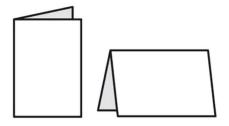


Figure C-2 Sample Half Fold

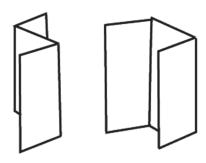


Figure C-3 Sample Z-Fold, or Tri-Fold, or Barrel Fold

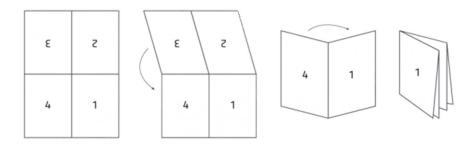


Figure C-4 Sample Cross-Fold or two (2) Half Folds

APPENDIX D PACKAGING AND MARKING EXAMPLES



Figure D-1 Single Package (bubble wrap)



Figure D-2 Single Package (plastic bag)



Figure D-3 Single Line Item in Separate Packages (plastic bags)

(NOTE: When item is packed in separate packaging material, the quantity value must accurately reflect the physical quantity).



Figure D-4 Single Line Item in Separate Packages within another Package. (Option 1: Single label on outer package with full/total quantity amount).

(NOTE: When item is packed in separate packaging material, the quantity value must accurately reflect the physical quantity).



Figure D-5 Single Line Item in Separate Packages within another Package. (Option 2: Separate labels on outer package).

(NOTE: When item is packed in separate packaging material, the quantity value must accurately reflect the physical quantity).



Figure D-6 Multiple Line Items in Separate Packages within another Package (Separate labels on outer package).



Figure D-7 Single Serialized Part

(<u>NOTE</u>: Does not supersede any contract or purchase order labeling requirements).



Figure D-8 Multiple Serialized Parts within same Package

(Unpeeled label(s) attached to packing slip).

(NOTE: Does not supersede any contract or purchase order labeling requirements).



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SPERIOR SOFT TOWN	, momes	Castoner PO & Castoner Castoner	Different Ballings	140
SPERM		(2)(150)	Def Packages Def Lines Skip Date Bilds Acct:	1000 Water
S-PFROR logile time Mone dy, Bols, 25 CISTOMER: See ELD 10:	907 TC:	01.15:	per Packages: per Lines: Sein Dels: Bildo-Acct: Bildo-Acct: Bildo-Acct: Carrior:	161210 161210 16210 162101 Fulls
SHPFROR Applie time Mores Dy. Role. Zo CUSTOMER: Sect	**	BULTE: Comprises only face of the control of the co	perfections pertines Septible Bills Acct Supervices	16121C Walter (2014)

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9A-ASIPO: 1234567891

Figure D-9 Exposed part (within a package) (Unpeeled label(s) attached to packing slip).

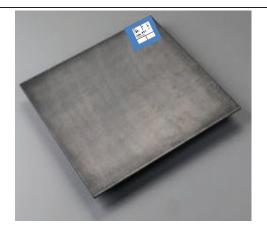


Figure D-10 Exposed part (without a package) (Option 1: Affix both flash breaker tape & label).

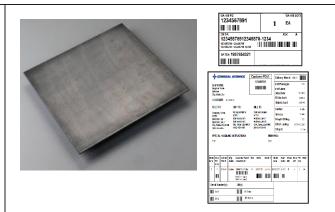


Figure D-11 Exposed part (without a package)

(Option 2: Unpeeled label(s) attached to packing slip).



Figure D-12 Electrostatic Discharge (ESD) Bag



Figure D-13 Reel (Affix both flash breaker tape and label).



Figure D-14 Drum (Affix both flash breaker tape and label).