



DLA
DEFENSE LOGISTICS AGENCY
Established 1961



The Nation's Combat Logistics Support Agency

DLA Packaging and Marking Guide

Jennifer Smith
DLA Packaging Program Manager
February 2021

WARFIGHTER ALWAYS



About

Material procured, received, stored and issued by DLA requires proper care to ensure that the items arrive and remain in a ready-for-issue condition





Importance

- Material that is procured, received, stored, and issued must be properly identified and packaged at the time of receipt
- The warfighter must receive the right item, on time, properly packaged





Contractual Requirements

- Section B of the contract contains
 - RA001 – incorporates the TQ master requirements.
 - RP001 – DLA Packaging Requirements for Procurement
- The prep for delivery section displays the packaging requirements that pass from the material master and could contain additional requirements such as
 - IP025 – Packaging, Marking, and Shipping of Hazardous Materials
 - IP027 - IP027: Packing and Marking Requirements Federal Stock Class (FSC) 5961 Semiconductors and Hardware Devices and FSC 5962 Electronic Microcircuits
 - IP056: Mercury or Mercury Compounds are Prohibited in Preservation, Packaging, Packing and Marking



Contractual Requirements, Section B

- Vendors must review the entire contract/solicitation**

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED: SPE4A6-20-P-1001	PAGE 3 OF 6 PAGES
<p style="text-align: center;">SECTION B</p> <p>SUPPLIES/SERVICES: 4931-01-115-5443</p> <p>ITEM DESCRIPTION:</p> <p>SLING, UNIVERSAL RA001: THIS DOCUMENT INCORPORATES TECHNICAL AND/OR QUALITY REQUIREMENTS (IDENTIFIED BY AN 'R' OR AN 'I' NUMBER) SET FORTH IN FULL TEXT IN THE DLA MASTER LIST OF TECHNICAL AND QUALITY REQUIREMENTS FOUND ON THE WEB AT: http://www.dla.mil/HQ/Acquisition/Offers/eProcurement.aspx</p> <p>FOR SIMPLIFIED ACQUISITIONS, THE REVISION OF THE MASTER IN EFFECT ON THE SOLICITATION ISSUE DATE OR THE AWARD DATE CONTROLS. FOR LARGE ACQUISITIONS, THE REVISION OF THE MASTER IN EFFECT ON THE RFP ISSUE DATE APPLIES UNLESS A SOLICITATION AMENDMENT INCORPORATES A FOLLOW-ON REVISION, IN WHICH CASE THE AMENDMENT DATE CONTROLS.</p> <p>RP001: DLA PACKAGING REQUIREMENTS FOR PROCUREMENT</p> <p>RQ011: REMOVAL OF GOVERNMENT IDENTIFICATION FROM NON-ACCEPTED SUPPLIES</p> <p>MIL-STD-130N(1) DATED 16 NOV 2012. IDENTIFICATION MARKING OF U.S. MILITARY PROPERTY</p>		

Link to DLA Master List of Technical and Quality Requirements

Callout for RP001: DLA Packaging Requirements for Procurement



Contractual Requirements, Prep for Delivery – Military Packaging

- Prep for Delivery – Military Packaging – MIL STD 2073-1E

PREP FOR DELIVERY:

PKGING DATA - MIL-STD-2073- 1E

QUP:001 PRES MTHD:33 CLNG/DRY:1 PRESV MAT:00

WRAP MAT:00 CUSH/DUNN MAT:00 CUSH/DUNN THKNSS:0

UNIT CONT:BV OPI:M

INTRMDTE CONT:D3 INTRMDTE CONT QTY:AAA

PACK CODE:U

MARKING SHALL BE IN ACCORDANCE WITH MIL-STD-129.

SPECIAL MARKING CODE:00 -00 No special marking

PALLETIZATION SHALL BE IN ACCORDANCE WITH RP001: DLA PACKAGING
REQUIREMENTS FOR PROCUREMENT

Coded packaging data

Marking requirements

Palletization requirements found
in RP001



Contractual Requirements, Prep for Delivery – ASTM D3951

- Prep for Delivery – ASTM D3951, Standard Practice for Commercial Packaging

PREP FOR DELIVERY:

PKGING DATA-QUP:001

WILL BE PACKAGED IN ACCORDANCE WITH ASTM D3951.

All DLA Master List of Technical and Quality Requirements take precedence over ASTM D3951.

Mark and label all packaging and packing in accordance with MIL-STD-129.

The Unit of Issue (U/I) and Quantity per Unit Pack (QUP) will be as specified in the contract/purchase order.

Quantity per Unit Pack (QUP)-
How many units of issue allowed
in same unit package

Packaging IAW ASTM D3951

Marking requirements



Contractual Requirements, Long Term Contracts and Hazardous Materials

- Long term contracts (LTC)
 - Packaging requirements for long term contracts do not print on delivery orders
 - Must refer to basic contracts or any contract modifications (MODs) that have additional packaging language
- Hazardous materials
 - Method of Preservation (MOP) will be HM
 - IP025 list hazardous material requirements
 - When shipping to an aerial port or a Consolidation Containerization Point (CCP), must be prepared for military air shipment



Packaging and Marking Standards, Regulations, Issuances

- MIL STD 2073-1E, DOD Standard Practice for Military Packaging
- MIL STD 129R, DOD Standard Practice for Military Marking for Shipment and Storage
- DLAR 4145.7, Packaging of Materiel
- ASTM D3951, Standard Practice for Commercial Packaging
- DLAR 4145.04, DOD Stock Readiness Program
- MIL STD 147E, DOD Standard Practice, Palletized Unit Loads

* Refer to contract/solicitation for appropriate revision (and change number) of specification



ASSIST Quick Search

- DOD packaging regulations, standards and specifications may be obtained online from the ASSIST Quick Search Program <http://quicksearch.dla.mil/qsSearch.aspx>
- Use the most recent version of all posted documents

Document ID: MIL-PRF-81705 Scroll down to access document images

Overview

Title: Barrier Materials, Flexible, Electrostatic Discharge Protective, Heat-Sealable
Scope: This specification establishes the requirements for heat-sealable, electrostatic discharge protective, flexible barrier materials used for the military packaging of microcircuits, sensitive semiconductor devices, sensitive resistors, and associated higher assemblies. In addition, the type I materials provide for watervaporproof protection and attenuation of electromagnetic interference effects (see 6.1).
Status: Active
Document Date: 12-NOV-2014
FSC/Area: 8135
Next Review Due: 11-NOV-2019
Qualification:
Doc Category: Performance Specification

Responsibilities

Lead Standardization Activity: SM LOGSA Packaging, Storage and Containerization Center
Preparing Activity: AS Naval Air Systems Command
Coordination: Full
Army Custodian: GL U.S. Army Natick Soldier Research, Development & Engineering Center
Navy Custodian: AS Naval Air Systems Command
Air Force Custodian: 69 Air Force Life Cycle Management Center - Packaging Technology and Engineering
DLA Custodian: CC DLA Land and Maritime

Projects

Project Number: 8135-2015-001

Amendments to military specifications or specification sheets issued after August 1, 2003 are incorporated in the modified document.

Revision History Click on column headings for a description of column content.

Media	Document Part Description	Dist Stmt	Document Date	Pages	Size
	Revision E Notice 1 - Validation	A	12-NOV-2014	1	2.1 KB
	Revision E Amendment 1 (amendment incorporated)	A	08-FEB-2010	25	169.6 KB
	Revision E	A	10-AUG-2009	24	191.5 KB
	Revision D Amendment 1 (amendment incorporated)	A	14-JUL-2004	27	98.8 KB
	Revision D	A	03-SEP-1998	28	100.7 KB
	Revision C	A	25-JAN-1989	33	1549.4 KB

NOTE: It is recommended that you use Adobe Reader v7.0 or higher for optimal download performance; older versions should continue to work, but downloading large files may appear to take longer, so please be patient in those cases.



MIL STD 2073-1E

- Coded packaging data for items going into the military distribution cycle
- Information contained on solicitations and awards specifying the packaging coded data required to protect item through life cycle (Section B, on solicitations and awards)
- Information determined by item characteristics (fragility factors, destination considerations, etc.)



MIL STD 2037-1E, Packaging Code Lookup

- https://camphill.leidos.com/code_lookup.nsf
- Input packaging codes into designated fields for definitions

Home Contact
Packaging Code Lookup

MIL-STD-2073-1
Miscellaneous Codes
Code Lookup Home

MIL-STD-2073-1 Packaging Code Descriptions (located on top row) conform to Revision E, change 3, **unless otherwise noted**. Please enter the desired packaging code(s) into the corresponding entry box and select the "Get Packaging Data" button below. Packaging Codes are derived from MIL-STD-2073-1 and DoD standards. For Unit/Intermediate Container, it is possible to enter two codes. If two codes are desired, place a comma(,) or semi-colon (;) between your entries.

Method of Preservation	Cleaning & Drying	Preservative Materials	Wrapping Material	Cushioning Material	Cushioning Thickness	Unit/Intermediate Container	Packing Code
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Special Material Content	Hazardous Material	Special Marking	Unit Container Level	Optional Procedures	Shelf-Life	Shelf-Life Action	Type of Storage
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

NOTE: To view the full MIL-STD-2073-1/DoD code description, select the code title in the result list.

CODE LOOKUP HOME



ASTM D3951

- Select items are eligible to be packaged in accordance with ASTM-D3951, Standard Practice for Commercial Packaging
- Commercial packaging QUP:
 - ASTM-D3951, paragraph 5.1.2.2 governs unit package Quantity
 - Generally, use QUP of 001 unless otherwise specified in your contract
- Commercial packaging Intermediate Container Quantity (ICQ):
 - ASTM-D3951, paragraph 5.1.3 governs intermediate package
- Commercial packaging “Marking”:
 - ASTM-D3951, paragraph 5.1.6.5 governs markings for DOD (IAW with MIL-STD-129)



ASTM D3951, Cont.

- Access to commercial standards requires purchase of the standards from the ASTM

– <https://www.astm.org/>

Military Packaging	Commercial Packaging
Use of specification materials	Permits use of non-specification materials
Requires interpretation of preservation/packaging/packing instructions	ASTM D3951 provides standard commercial guidelines
Requires the preservation methods and materials from MIL-STD-2073-1	Application of preservation/packing techniques is at the discretion of the vendor
MIL-STD-129 marking required	MIL-STD-129 marking required
Compliant WPM required	Compliant WPM required
Available on ASSIST	Must be purchased



MIL STD 129R Markings

- Identification markings
 - NSN - (National Stock Number)
 - CAGE Code
 - PN - (Part #)
 - Nomenclature (Not always required on exterior containers)
 - Quantity and unit of issue
 - PIID (or Contract and call for legacy contracts)
 - Military Method and date of unit preservation
 - Gross Weight (Exterior containers)
 - Shelf Life Information (if applicable)
 - Serial Numbers (if applicable)
- Identification bar code markings
 - NSN (& Serial Number) for unit and intermediate packs
 - NSN, Contract number, CAGE, CLIN, Shipment Number (& Serial Number) on exterior shipping containers



MIL STD 129R Markings, Cont.

- Address markings
 - Uses Military Shipping Label (MSL).
 - Transportation Control Number (TCN), DODAAC of Ultimate Consignee, and Piece Number must be bar coded when shipment is destined into the Defense Transportation System
 - 2D Bar Coding of MSL Information,
 - TCMD data and line item supply data
- Special markings
 - Hazardous Material
 - Set Marking
 - Project Code
 - Warranty, Manufactured, Cured, or Assembled Date
 - Expiration, Inspection, or Pack Date
 - Arrows, Fragile, Special Handling, etc.
 - UID and RFID



MIL STD 129R Markings, PIID

- Procurement instrument identifier (PIID) (e.g. contract number or purchase order number)
 - For current DFARS compliant DOD contracts, cite the 13 character PIID. [REDACTED]
[REDACTED] (since the call order PIID is treated as an independent contractual document)
 - For legacy contracts, cite the PIIN (contract number or purchase order number) including four-digit delivery order or call number if applicable, and lot number (see 5.10.13) shall be shown. Additional information may be required by the contract or purchase order



Unit & Intermediate Container Markings

MIL-STD-129R Checklist for Identification & Bar code marking on Unit packs and Intermediate containers.

Order of Markings

*****Check blocks to confirm order*****

- 1. NSN/NATO stock number. If no NSN is assigned, then this line may be omitted
- 2. CAGE code
- 3. Part Number. The letters "PN" or "P/N" shall be used to identify this information. If the item has no PN assigned to it or if no PN is cited, then nothing is shown
- 4. Item description or nomenclature. The exact name and description of an item as it appears in the contract, purchase order or requisition shall be shown
- 5. Quantity and UI. A non-definitive UI shall be accompanied by a quantitative expression such as "1 RO (100 FT)"
- 6. Contract number or purchase order number (Procurement Instrument Identification Number (PIIN)) including four-digit delivery order or call number, modification for change order number. The in-the-clear contract number will include the dashes as shown in the contract, i.e., DAAB07-96-C-1234
- 7. Military preservation method and date of unit preservation (e.g., "M41-4/02" - method 41, in April 2002). To reflect commercial packaging (ASTM-D3951), DLA uses "MCP". If a preservation date doesn't apply, the pack date will be shown
- 8. Shelf-life markings, (if applicable – see 5.10.1)
- 9. Serial number(s). When an item is assigned a serial number, that number shall be applied and preceded by the abbreviation "SER NO" (see 5.4.1.1.1).
- 10. Bar code markings – NSN & CAGE, if required 2D (PDF 417) & serial no. (see MIL-STD-129, paragraph 5.4.1.1 & Figures 17-19).

INTERMEDIATE CONTAINER

Linear bar codes (Code 39) are optional when the 2D (PDF 417) bar code includes the identification data. (see MIL-STD-129R Figure 1)

UNIT CONTAINER

2D (PDF 417) code is recommended

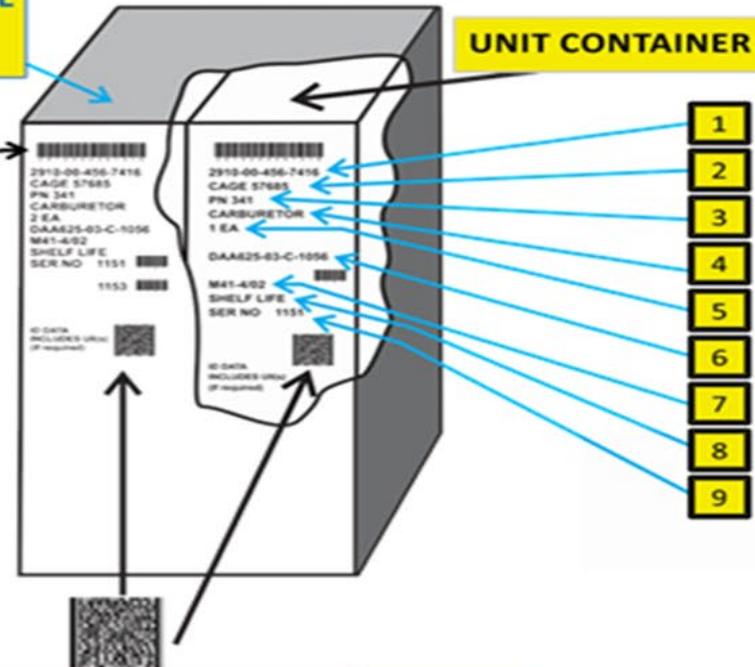


FIGURE 1: Example of Unit Pack and Intermediate Container ID Markings (including an example of bar code markings)
NOTE: See MIL-STD-129R, paragraph 5.1. – 5.1.1 for details



Unit and Intermediate Marking Example-Linear Bar Code

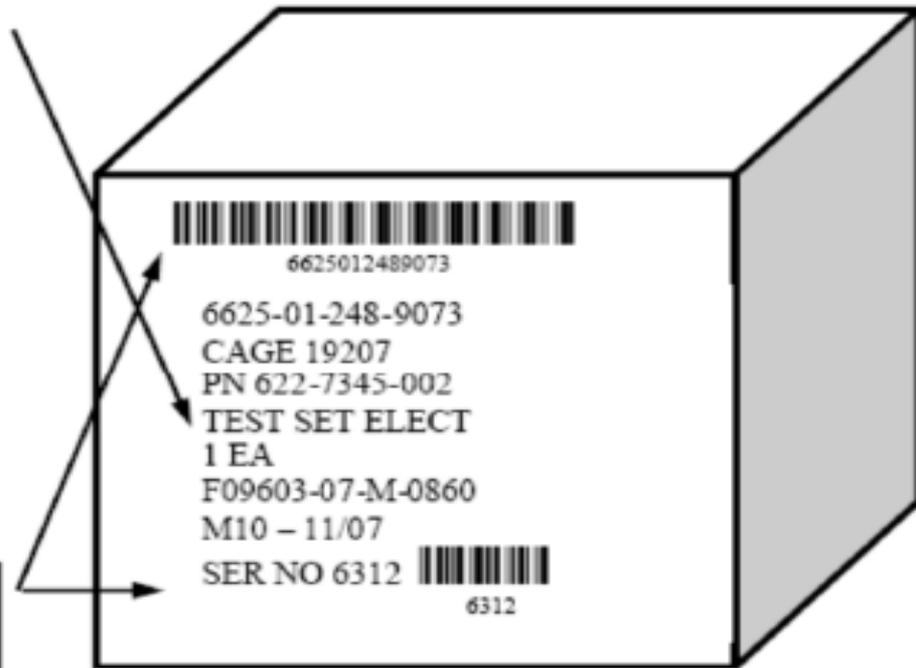
Unit & Intermediate Containers with linear (Code 39) bar codes

**# 1 - IDENTIFICATION
MARKINGS**

- NATIONAL STOCK NUMBER
- CAGE CODE
- PART NUMBER
- ITEM DESCRIPTION
- QUANTITY AND UNIT OF ISSUE
- CONTRACT NUMBER & LOT NUMBER
- MILITARY METHOD & DATE OF UNIT PRESERVATION
- SERIAL NUMBER (WHEN ASSIGNED)

#2 - BAR CODES

- NATIONAL STOCK NUMBER (NSN)
- SERIAL NUMBER (WHEN ASSIGNED)



*For units without UII



Unit and Intermediate Marking Example- 2D (PDF417) Symbol

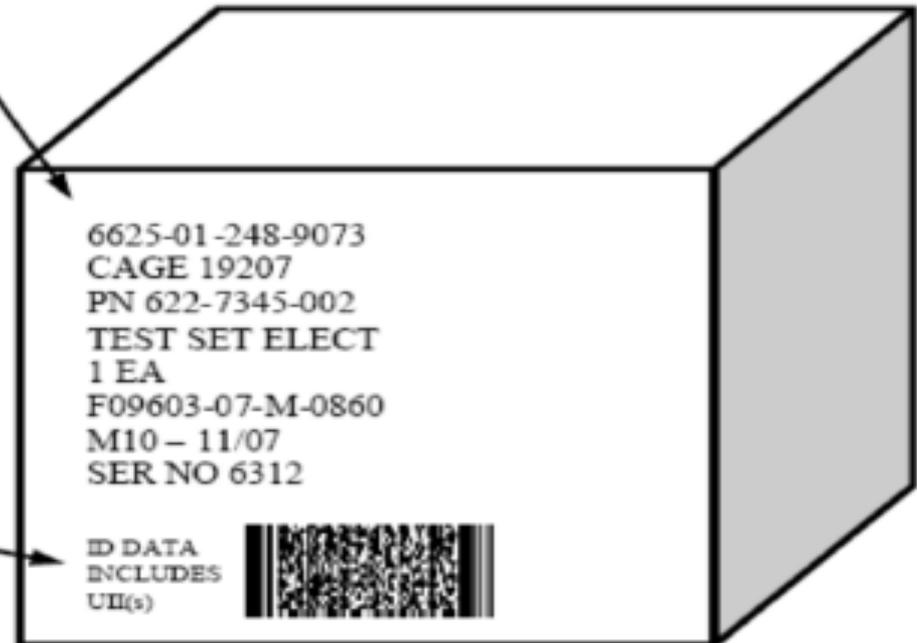
Unit & Intermediate Containers with 2D (PDF417) symbol*

1 - IDENTIFICATION MARKINGS

- NATIONAL STOCK NUMBER
- CAGE CODE
- PART NUMBER
- ITEM DESCRIPTION
- QUANTITY AND UNIT OF ISSUE
- CONTRACT NUMBER & LOT NUMBER
- MILITARY METHOD & DATE OF UNIT PRESERVATION
- SERIAL NUMBER

#2 - 2D (PDF417) Symbol Data with (Data Identifiers)

- NATIONAL STOCK NUMBER (N)
- SERIAL NUMBER (S)
- UNIQUE ITEM IDENTIFIER (2SS)



*For units with UII



Exterior Container Markings

Order of Markings

*****Check blocks to confirm order*****

- a. NSN/NATO stock number. If no NSN is assigned, then this line may be omitted
- b. CAGE code
- c. Part Number. The letters "PN" or "P/N" shall be used to identify this information. If the item has no PN assigned to it or if no PN is cited, then nothing is shown
- d. Quantity and UI. A non-definitive UI shall be accompanied by a quantitative expression such as "1 RO (100 FT)"
- e. Contract number or purchase order number (Procurement Instrument Identification Number (PIIN)) including four-digit delivery order or call number, modification for change order number. The in-the-clear contract number will include the dashes as shown in the contract, i.e., DAAB07-96-C-1234
- f. Military preservation method and date of unit preservation (e.g., "M41-4/02" - method 41, in April 2002). To reflect commercial packaging (ASTM-D3951), DLA uses "MCP". If a preservation date doesn't apply, the pack date will be shown
- g. Gross weight. The capital letters "WT" shall precede the gross weight. The gross weight will be expressed in pounds rounded up to the nearest pound
- h. Shelf-life markings, (if applicable – see MIL-STD-129, paragraph 5.10.1)
- i. Serial number(s). When an item is assigned a serial number, that number shall be applied and preceded by the abbreviation "SER NO"
- j. Bar code markings – NSN & CAGE, if required 2D (PDF 417) & serial no. (see MIL-STD-129, paragraph 5.4.1.2 & Figures 1, 15, 22, 25).
- k. RFID tags – required for exterior/shipping containers & pallet loads (not shown in illustration, see MIL-STD-129, paragraph 5.9.1)

MIL-STD-129R Checklist for Identification Marking on Exterior Containers and Unpacked items

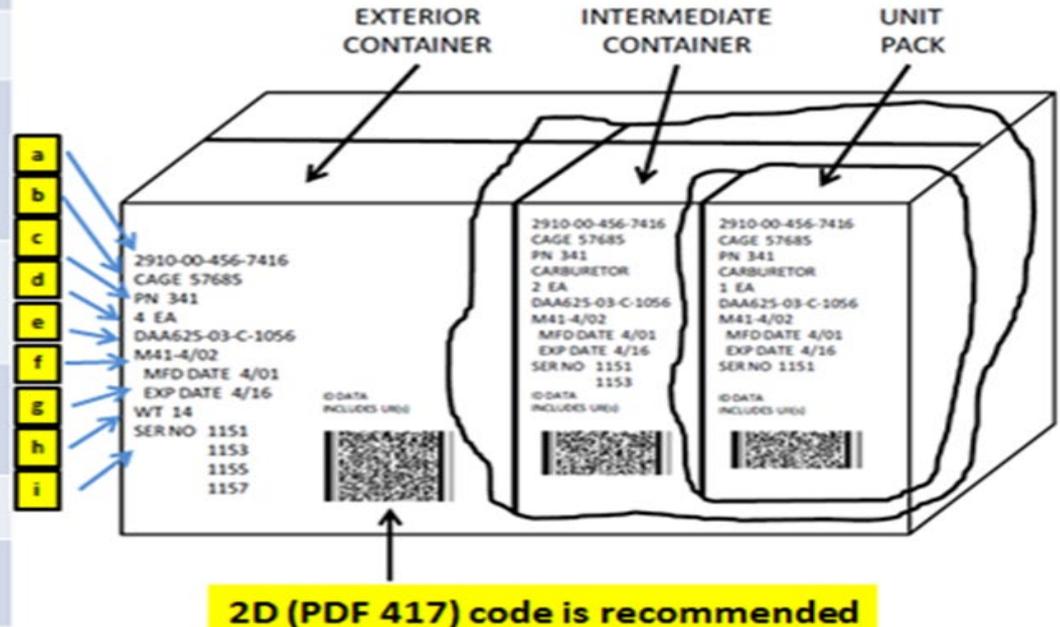


FIGURE 2: Example of Unit Pack, Intermediate and Exterior Container ID markings (No linear (code 39) bar code markings shown since 2D (PDF 417) bar code includes the identification data).



Exterior Container Example



2910004567416



0001AA



DAA62507M1056



BET0001Z



57685

2910-00-456-7416

CAGE 57685

PN 341

3 EA

DAA625-07-M-1056

M41 02/08

WT 30

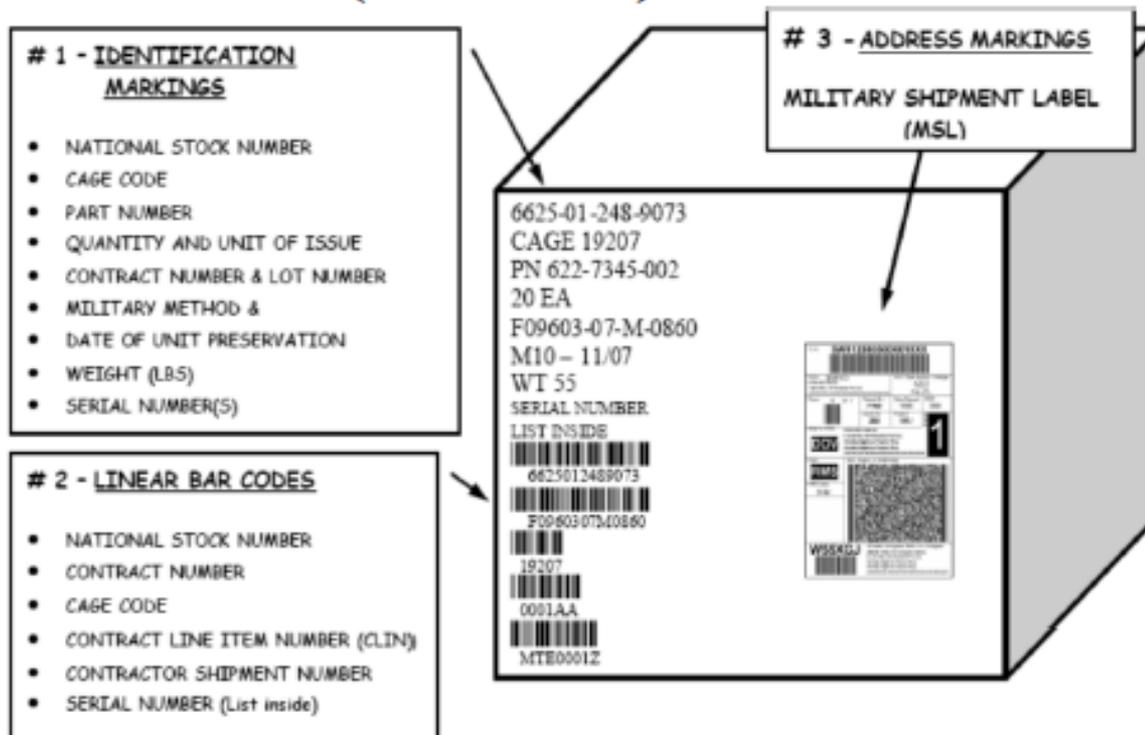
ID DATA
INCLUDES UII(s)





Exterior Container Marking Example-Linear Bar Code

Exterior Containers with linear (Code 39) bar codes

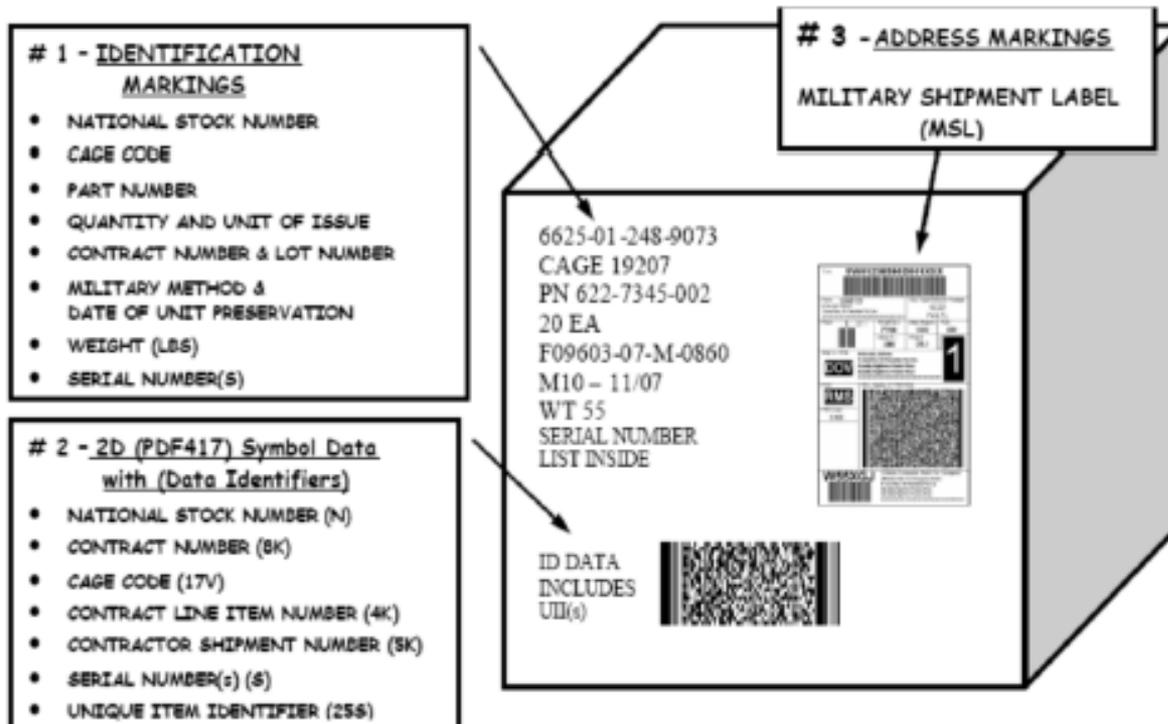


*For containers without UII



Exterior Container Marking Example-2D (PDF417) Symbol

Exterior Containers with 2D (PDF417) symbol*



*For containers with UII



Military Shipping Label (MSL)

The recommended MSL size is 4 inches by 6 inches.

TCN SW81238350D001XXX			
From SW8123 In-the-clear Address 3 Lines Max, 35 Characters Per Line XXXXXXXXXX1XXXXXXXXXX2XXXXXXXXXX3XXXXX		TAC / Type Service / Postage SZZZ Frt LTL	
Piece 1 Of 1 	Weight (lb.) 7760	Date Shipped 1090	RDD 999
	Cube (ft.) 385	Project 9BU	Priority 1
Ship To / POE In-the-clear Address 5 Lines Max, 35 Characters Per Line DOV Abcdefg Hijklmno Pqrstuv Wxyz Abcdefg Hijklmno Pqrstuv Wxyz XXXXXXXXXX1XXXXXXXXXX2XXXXXXXXXX3XXXXX			
POD RMS	MSL, Supply, & TCMD Data 		
FMS Case CKM			
W55XGJ Ultimate Consignee / Mark For Consignee Ultimate / Mark For Consignee Address 5 Lines Max, 35 Characters Per Line Abcdefg Hijklmno Pqrstuv Wxyz Abcdefg Hijklmno Pqrstuv Wxyz XXXXXXXXXX1XXXXXXXXXX2XXXXXXXXXX3XXXXX			

Required bar coding:

- Code 39 (Linear)
 - TCN
 - Piece number
 - Ultimate consignee
- Department of Defense Activity Address Code (DODAAC) PDF417 (2D)
 - Shipment
 - Line item
 - TCMD data
- Transportation Office:
 - 800-456-5507

Ref: MIL-STD-129, Paragraph 5.2.2 (Pages 28-36)



Special Markings – Shelf-Life

- Required shelf-life markings
 - TYPE I (non-extendable):
 - MFD DATE 10/01
 - EXP DATE 10/06
 - TYPE II (extendable):
 - ASSEMBLED DATE 10/01
 - INSP/TEST DATE 10/04
 - RUBBER or ELASTOMER (TYPE I OR II):
 - CURED DATE 4Q01
 - INSP/TEST DATE 4Q05



Special Markings – Electrostatic Discharge Sensitive (ESDS)



Unit Pack



**Intermediate
and Exterior
Pack**



Special Markings - Miscellaneous

Project Code



Special Handling

Method 50





Special Markings – Hazardous Materials

- Proper Shipping Name
- UN Number
- Hazard Labels

Cargo Aircraft Only Label



UN Performance Specification

Example of a Single or Combination Marking:



4G / Y 7.4 / S /99/USA /DOD

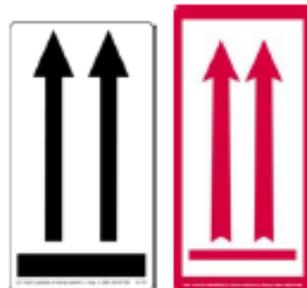
- (a) The United Nations Symbol
- (b) Type of Packaging Code
- (c) Packing Group:

X = PG I, II and III
 Y = PG II and III
 Z = PG III Only

- (d) Maximum Gross Mass (In Kilograms)
- (e) Letter "S", Solid or Inner Packagings
- (f) Year of Manufacture or assembly
- (g) State (Country) authorizing mark
- (h) Symbol of Manufacturer/Certifier



Package Orientation Marking





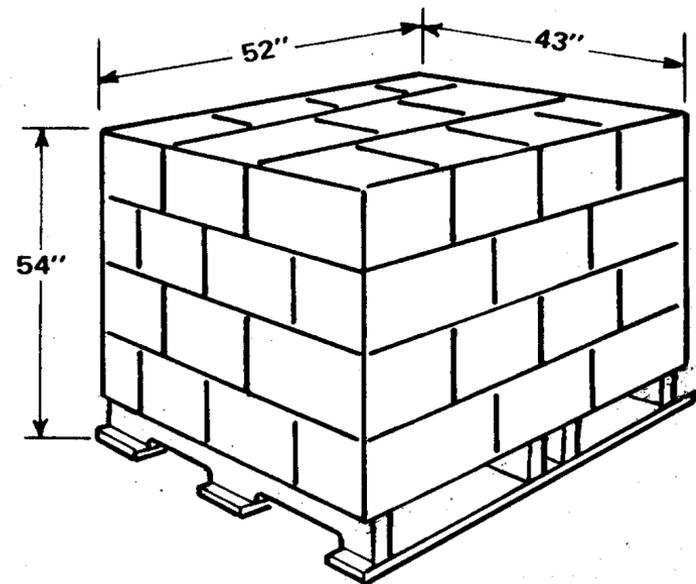
Unit of Issue (UI) and Quantity per Unit Pack (QUP)

- Unit of Issue (UI) is the unit by which a material is issued
- The number of UIs bound or packaged in a unit pack is the Quantity per Unit Pack (QUP)
- Failure to comply with the UI and QUP requirements will result in a Supply Discrepancy Report (SDR) and could result in a delay of payment or additional fees for remediation
 - If the QUP is ONE, only ONE item per unit pack
 - If the QUP is greater than ONE, up to the QUP listed may be packaged in the same unit pack



Palletization

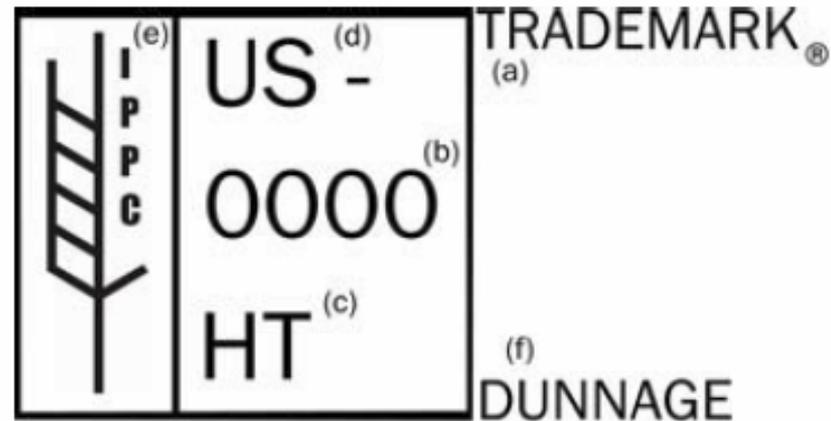
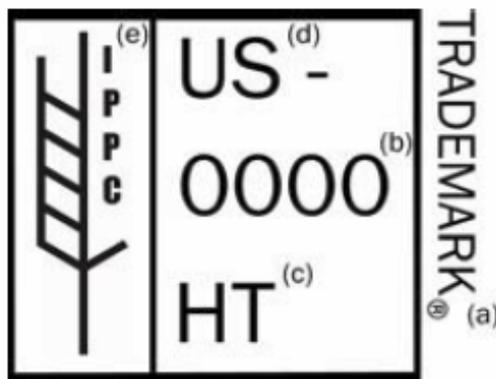
- 40X48. The only exception is when there is ONE item that is too big and requires a larger pallet to fit.
- Types
 - MH1/9-02SW4048 for loads 1500lbs and less
 - MH1/9-03SW4048 for loads 1500lbs to 3000lbs
 - MH1/9-10BW4048 for loads 1500lbs to 3000lbs (alt)
- Material
- Must conform to ISPM-15 and be heat treated (HT)
- Height/Overhang/Condition
- No more than 54"
- Overhang not permitted
- Must be in good shape and functional
- Standard Pallet Loads on a 40" x 48" pallet
 - 43 Inches in Length (1.5-inch overhang on each side)
 - 52 Inches in Width (2-inch overhang on each side)
 - 54 Inches in Height (includes pallet)
 - 3000 Lbs. Max Gross Weight





Wood Packaging Material (WPM)

- WPM is defined as wood pallets, skids, load boards, pallet collars, wooden boxes, reels, dunnage, crates, frames, and cleats
- All WPM is required to be heat treated, including pallets, and marked accordingly with the heat-treated compliant mark





Contract Questions?

- The primary contact for all contractors/vendors is the contracting officer. Vendors should submit a Post Award Request (PAR) for any question (packaging related or other) using the PAR link on DIBBS
 - <https://www.dibbs.bsm.dla.mil//>



Useful Links

- Packaging Code Lookup:
https://camphill.leidos.com/code_lookup.nsf
- DOD HazMat:
<https://www.dau.edu/cop/hazmat/Pages/Default.aspx>
- DLA Packaging:
<https://www.dla.mil/HQ/LogisticsOperations/Packaging/>



End

