FOREWORD

This Booklet has not been officially adopted by DoD. It is prepared as an informational guide for familiarization purposes only and is not intended to take the place of contractual requirements, specifications or regulations. The information contained herein is derived from current government packaging documents, pamphlets and technical manuals and is used for instructional purposes only.

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DISTRIBUTION UNLIMITED
CREDITS: SOME PACKAGING & PRESERVATION ILLUSTRATIONS COURTESY OF STU CRYSEL, AMCPSCC, TOBYHANNA PA
Locations of Packaging Requirements in Solicitations & Contracts

Section A - Solicitation / Contract Form
Section B - Supplies & Services
Section C - Description/Specs/Statement of Work
Section D - Packaging & Marking
Section E - Inspection & Acceptance
Section F - Deliveries or Performance
Section I - Contract Clauses
Section J - Attachments

- CID’s (Commercial Item Descriptions)
- Military or Federal Specifications
- Aperture Cards & Drawings
- Special Packaging Instructions
- DLA Master Solicitations
- FAR & DFARS clauses
- Product Specifications
- Military Standard Drawings (MS)
- Industry Standards (ASTM’s)
- Packaging Requirement Codes

* Review entire contract/solicitation
HAZARDOUS MATERIALS

In addition to Contractual Requirements - MUST be Packaged in accordance with the appropriate Modal Regulation(s):

- Title 49 CFR for Land
- IMO/IMDG for Water
- ICAO/ IATA for Commercial Air
- AFMAN 24-204_IP* for Military Air

*INTERSERVICE: DLAI 4145.3 / TM 38-250 / NAVSUP PUB 505 / MCO P4030.19J

Must be marked and labeled in accordance with the appropriate Modal Regulations and when specified, MIL-STD-129.

In case of conflicting information, the appropriate Modal Regulation(s) take precedence.
Some items for which packaging IAW ASTM D-3951 may be appropriate include but are not limited to:

- Items Intended for Immediate Use
- Items for fulfilment of Not-Mission Capable Supply
- Items Intended for Depot Consumption
- Shipped small parcel post (CONUS only), Not for Stock
- Designated as Direct Vendor Deliveries (CONUS only)

For shipments to DoD, the marking shall be IAW MIL-STD-129 (ASTM D3951-10)

The decision to utilize commercial packaging is made by packaging technical personnel at the Procuring (buying) activity prior to RFQ or solicitation.
Standard Practice for Military Packaging

Applies to items for which military packaging is required to meet operational demands. These items include, but are not limited to items:

(a) Delivered during wartime for deployment with or sustainment to operational units.
(b) Requiring reusable containers.
(c) Intended for delivery-at-sea.
(d) Intended to enter the Defense Transportation and Distribution System and when storage is expected to exceed 6 months.

APPENDICES

• APPENDIX A - DEVELOPMENT OF MILITARY PACKAGING REQUIREMENTS
• APPENDIX B - FACTORS & FORMULAE ESTABLISHING MILITARY PACKAGING QUP & ICQ
• APPENDIX C - CONTAINERS
• APPENDIX D - DEVELOPMENT OF MILITARY PACKAGING REQUIREMENTS FOR KITS (PARTS & MODIFICATION)
• APPENDIX E - MILITARY PACKAGING DATA FORMS
• APPENDIX F - MILITARY PACKAGING DESIGN VALIDATION PROVISIONS
• APPENDIX G - QUALITY ASSURANCE PROVISIONS
• APPENDIX H - PROCEDURES FOR COMPLIANCE WITH CONTAINER DESIGN RETRIEVAL SYSTEM (CDRS) REQUIREMENTS.
• APPENDIX J - MILITARY PACKAGING REQUIREMENT CODES

(Some contracts cite MIL-STD-2073-1D)
Military Packaging. A means of specifying the military preservation and packing that a given item requires to ensure that it is not degraded during shipment and storage.

Military Preservation. Application of materials and/or methods designed to protect an item during shipment, handling, indeterminate storage and distribution to consignees worldwide.

Military Packing. Application of any exterior protective methods, materials, or devices to assure the integrity of the preserved item as follows: (next slide)
Military Packing

Military Packing. Application of any exterior protective methods, materials, or devices to assure the integrity of the preserved item as follows:

LEVEL A
Protection required to meet the most severe worldwide shipment, handling and storage conditions.

A Level A pack must, in tandem with the applied method of preservation, be capable of protecting material from the effects of direct exposure to extremes of climate, terrain, and operational and transportation environments.

Examples of containers used for Level A packing requirements include, but are not limited to, overseas type wood boxes, and plastic and metal reusable containers.

LEVEL B
Protection required to meet moderate worldwide shipment, handling and storage conditions.

A Level B pack must, in tandem with the applied preservation, be capable of protecting material not directly exposed to extremes of climate, terrain, and operational and transportation environments.

Examples of containers used for Level B packing requirements include, but are not limited to, domestic wood crates, weather-resistant fiberboard containers, fast pack containers, weather-resistant fiber drums, and weather-resistant paper and multi-wall shipping sacks.

Minimal packing requirements. When anticipated logistics paths indicate that items requiring military preservation, as outlined in this standard, will not be exposed to shipping environments more severe than those normally encountered in the commercial distribution system, military packing requirements need not be implemented. Acceptable minimal packing requirements for shipments of this nature are listed in table J-IXb.
FIVE BASIC METHODS
OF MILITARY PRESERVATION

Method 10 - Physical protection
Method 20 - Preservative coating only
Method 30 - Waterproof protection
Method 40 - Watervaporproof protection
Method 50 - Watervaporproof protection with desiccant

• Protection from physical damage and mechanical malfunction is required for all methods of preservation
• When methods require chipboard or fiberboard containers within the bag, the corners and edges of the containers shall be blunted
• When a transparent unit pack is specified, the preliminary wrapping shall also be transparent
• Preliminary wrapping materials in contact with any item coated with a preservative shall be greaseproof
• When flexible bags are used, the volume of trapped air within the bag shall be kept to a minimum by compressing the bag around the contents, or by carefully drawing a vacuum inside the bag
• When specific methods require using a bag or container, preliminary wrapping, cushioning or other dunnage material shall be applied as necessary to protect the item, the bag, and the container from all projections or sharp edges of the item as well as to restrict movement of the item within the unit pack

Method 50 requires desiccant, humidity indicator and Method 50 Label(s)
Method 10
Physical Protection

Types of items to be preserved Method 10:
Plastic, Ceramics, Glass, Painted Metal, Finished Wood Products

Unpreserved items shall be provided protection from physical damage and mechanical malfunction. Cushioning materials, dunnage, blocking and bracing shall be applied as required to protect the items and the enclosing media and restrict the movement of the item within the container.
Method 20
Physical Protection with Preservative
(with greaseproof wrap, as required)

- Preservative shall be applied directly after cleaning and drying
- Contact preservative coated items shall be wrapped in material conforming to MIL-PRF-121 or QQ-A-1876
When specified in the contract or order, a carton or box shall be required to effect the unit container and the primary cushioning specified in the contract or order shall be placed between the outside of the bag and the inside of the carton or box.
Method 32
Container, Waterproof Bag, Heat Sealed

1- Preserved
(as required)

2 - Wrapped
(as required)

3 - Cushioned
(as required)

4 - Container
Table C.1

5 - Bag
MIL-DTL-117, Type III, Class B, Style 2
MIL-DTL-117, Type III, Class C, Style 1
Method 33
Greaseproof – Waterproof bag, heat sealed

1- Preserved
(as required)

2- Wrapped
(as required)

3- Cushioned
(as required)

4- Bag
MIL-DTL-117, Type II, Class C, Style 1,2 or 3
MIL-DTL-117, Type III, Class C, Style 1
Method 41
Watervaporproof bag, heat sealed

1-Preserved (as required)
2-Wrapped (as required)
3-Cushioned (as required)
4-Bag
   MIL-DTL-117 Type I, Class E, Style 1, 2 or 3
   MIL-DTL-117 Type I, Class F, Style 1
   MIL-DTL-117 Type II, Class E, Style 1

Exhaust Excess Air

Heat Seal
Identification Marking (MIL-STD-129)

For electrostatic protection refer to 5.2.4.1.
5.2.4.1 - ESDS items shall be preserved in accordance with table J-Ia, Code "GX"
Method 42
Container, Watervaporproof bag, heat sealed, Container

- Preserved, Wrapped and Cushioned (as required)
- Blunt Corners to Prevent Bag Puncture
- Place in Container selected from Table C-I
- Inner Carton placed in Bag
  MIL-DTL-117, Type I, Class E, Style 1
  MIL-DTL-117, Type II, Class E, Style 1
- Exhaust Air Heat Seal Bag
- Sealed bag is placed within appropriate outer container
When the outer container becomes the shipping container, it shall be marked as a shipping container in accordance with MIL-STD-129; the bag shall be marked as a unit pack in accordance with MIL-STD-129.
Method 44
Rigid Container (other than metal)

1. Preserved (as required)
2. Wrapped (as required)
3. Cushioned (as required)

Sealed, snug fitting, rigid container other than all metal
Method 45
Rigid Metal Container, Sealed

1 - Preserved (as required)

2 - Wrapped (as required)

3 - Cushioned (as required)

Sealed, snug fitting, rigid metal container
Method 51
Waterproof Bag with Desiccant, Heat Sealed

The bag size shall be of sufficient surface area to permit two subsequent resealings.

The humidity indicator shall be firmly secured directly behind the inspection window or immediately within the closure seal of the container.
Method 52
Container, Watervaporproof Bag w/Desiccant, Heat Sealed, Container

Under no circumstances shall desiccant be permitted to come in direct contact with critical surfaces of the enclosed item.
### MIL-STD-2073-1E Worksheet

**PURPOSE:** To translate packaging requirements from Orders or Contracts which specify Packaging Requirements Codes in accordance with MIL-STD-2073-1E

<table>
<thead>
<tr>
<th>Contractor:</th>
<th>Contract Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Procuring Office:</td>
<td>Item Description:</td>
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</table>

<table>
<thead>
<tr>
<th><strong>HEADING</strong></th>
<th><strong>DETAIL</strong></th>
<th><strong>TABLE</strong></th>
<th><strong>CODE</strong></th>
<th><strong>REQUIREMENT</strong></th>
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<tbody>
<tr>
<td>QUP</td>
<td>Quantity per Unit Pack</td>
<td>Page 142 Para. J.4.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICQ</td>
<td>Intermediate Container Quantity</td>
<td>Page 143 Para J.4.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOP</td>
<td>Method Preservation</td>
<td>J.I or J.Ia</td>
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<td></td>
</tr>
<tr>
<td>CD</td>
<td>Cleaning and Drying</td>
<td>J.II</td>
<td></td>
<td></td>
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<tr>
<td>PM</td>
<td>Preservative Material</td>
<td>J.III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WM</td>
<td>Wrap Material</td>
<td>J.IV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUD</td>
<td>Cushioning / Dunnage Material</td>
<td>J.V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT</td>
<td>Cushioning Thickness</td>
<td>J.VI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UC</td>
<td>Unit Pack Container</td>
<td>J.VII</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC</td>
<td>Intermediate Container</td>
<td>J.VII</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UCL</td>
<td>Unit Container Level</td>
<td>J.VIII</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPI</td>
<td>Optional Procedure Indicator</td>
<td>J.VIIIa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PACK</td>
<td>Level A Military Packing</td>
<td>J.IX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PACK</td>
<td>Level B Military Packing</td>
<td>J.IXa</td>
<td></td>
<td></td>
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<tr>
<td>PACK</td>
<td>Minimal Packing</td>
<td>J.IXb</td>
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<tr>
<td>SP MK</td>
<td>Special Marking</td>
<td>J.X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MIL-STD-2073-1E(1)
PACKAGING REQUIREMENT CODES (PRC)

QUANTITY PER UNIT PACK (PRC)
Para. J.4.3

States the quantity per unit pack in the clear up to 999. BLK will be used for Bulk and ZZZ for Special Requirements listed in supplemental data or drawings.

INTERMEDIATE CONTAINER QUANTITY (ICQ)
Para J.4.11

When intermediate containers are used, the number of unit packs per intermediate containers up to 100 will be listed in the clear. Other codes may be AAA, XXX or ZZZ.

PRESERVATION
Table J.I, & J.Ia

Method of Preservation will be a two (2) digit code derived from the tables. Table J.I information is for the preservation methods and submethods established by Para. 5.2.3 Table J.Ia codes are for packaging procedures which are regularly used and require a more detailed description than allowed by the basic code and yet do not require the use of special packaging instructions.

CLEANING & DRYING PROCEDURES
Table J.II

This is a one (1) digit code sometimes shown as CLN/DRY or C/D.

PRESERVATIVE MATERIAL
Table J.III

A two (2) digit code. Refers to the type of material to be used to coat the item. Table J-III lists contact preservative material in alphanumeric order.

WRAPS
Table J.IV

A two (2) digit code. This is a listing of what the item will be wrapped in after it has been properly preserved.
CUSHIONING AND DUNNAGE  
Table J.V

A two (2) digit code. Codes listing the cushioning and dunnage material that will be utilized after the item has been wrapped. This material will usually be placed between the wrapped item and the inside of the unit container.

CUSHIONING THICKNESS  
Table J.VI

One (1) digit code listing the minimum thickness that is required between the unit and the unit container in any one direction.

UNIT CONTAINER  
Table J.VII

Two (2) digit code listing the type of container into which the item will be placed.

INTERMEDIATE CONTAINER  
Table J.VII

Two (2) digit code listing the type of container that is to be used if an intermediate container is necessary.

UNIT CONTAINER LEVEL  
Table J.VIII

One (1) digit:

"O"  - Denotes the unit container is not an acceptable shipping container.

"A" or "B"  - Denotes if the container is an acceptable shipping container and what the highest level of protection will be afforded by this container.

"Z"  - Indicates that the container requires special considerations (air only, inside storage only, etc.)

OPI (Optional Procedure Indicator)  
Table J.VIIIa

"A" is indicated if packaging is in accordance with a specification or a special packaging instruction.

"M" indicates that all packaging data is mandatory for compliance and no substitutions are permitted.

"O" indicates that options can be exercised as to specific method of preservation or DoD approved packaging materials to be used. However, basic preservation method shall be retained and unit package dimensions shall not be increased by more than one inch. Equal or better protection shall be given the item and there shall be no increase in the package cost.
MILITARY PACKING

Table J.IX & IXa

One (1) digit code. Indicates the type of shipping container for MILITARY packing.

MINIMAL PACKING

Table J.IXb

One (1) digit code. Indicates the type of shipping container for Minimal packing.

SPECIAL MARKINGS

Table J.X

Two (2) digit code. If more than one code or a combination of codes not included in the table must be specified, "ZZ" will be annotated which indicates that supplemental data is listed elsewhere.

Some contracts will show the following information:

UNIT PACK WEIGHT

Five (5) digit numerical code. It shows the actual unit pack weight in the clear to the nearest on tenth of a pound. The decimal point does not show.

UNIT PACK SIZE

LGTH      WDTH     DPTH

Four (4) digit numerical code. This code shows the outside dimensions in the clear to the nearest tenth of an inch in the order of length, width and depth (or height). The decimal points do not show. (Example: 0035 = 3 1/2"

UNIT PACK CUBE

WH CUB     1000th

Four (4) digits for the whole cube and three (3) digits in the 1000th column. These seven (7) numbers indicate the actual cube of the unit pack to the nearest one thousandth of a cubic foot up to 9,999.999 cubic feet.

Packaging Code Lookup Tool
https://camphill.leidos.com/code_lookup.nsf/codecheck
MIL-STD-2073-1E(1)

Paragraph 5.7 Quality Assurance Provisions. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all quality assurance requirements as specified in Appendix G

Quality Assurance Provisions

Appendix G

G.4 Preservation Inspections

G.4.1 Visual Preservation Examinations

G.4.2 Leakage Test (Method 5009 *)

• Vacuum Retention Technique
• Submersion or Immersion Technique
• Pneumatic Pressure Technique
• Hot Water Technique
• Squeeze Technique

G.4.3 Heat-Sealed Seam Test (Method 2024*)

G.5 Packing Inspections

G.5.1 Examination procedures (Refer to MIL-STD-2073-1E(1) for complete list)

* See MIL-STD-3010 for additional information on test methods and documentation format.
Inspection Provisions

Table G-I. Preservation Inspection Provisions.

* Some of the included visual inspections are:
  • Item contaminated by handling after cleaning.
  • Contaminated wiping cloths or compressed air used.
  • Preservative not as specified.
  • Excessive Preservative.
  • Wrap not as specified.
  • Cushioning material or thickness not as specified.
  • Interior unit container corners not blunted.
  • Excessive looseness in unit container.
  • Weight & cube of unit pack exceeds maximum allowable.
  • Incorrect QUP
  • Marking omitted, incorrect or illegible 2/3/4/

2/ For methods 42 and 52, unit pack marking of MIL-STD-129 shall be applied to the barrier bag as well as the outer container.
3/ When a box or container is used to effect the unit pack of methods 31, 33, 41 and 51, unit pack markings of MIL-STD-129 shall be applied to the barrier bag as well as the box specified to effect the unit pack.
4/ When the unit pack is also used as the shipping container, then the markings applicable for shipment shall be applied to the exterior container in accordance with MIL-STD-129.

Table G-II. Leakage and heat-sealed seam test provisions.

Table provides method/submethod and required leak and or heat-sealed seam test.

* See MIL-STD-2073-1, Table G.I for complete list.
Package Markings

There are four types of Basic Markings

1. Identification Marking

   - NSN - (National Stock Number)
   - CAGE Code
   - PN - (Part #)
   - Nomenclature (Not always required on exterior containers)
   - Quantity and unit of issue
   - Contract number
   - Military Method and date of unit preservation
   - Gross Weight (Exterior containers)
   - Shelf Life Information (if applicable)
   - Serial Numbers (if applicable)

2. 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

3. 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.

4. 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
Unit & Intermediate Container Label Example

<table>
<thead>
<tr>
<th>2910004567416</th>
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<tbody>
<tr>
<td>2910-00-456-7416</td>
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<tr>
<td>CAGE 57685</td>
</tr>
<tr>
<td>PN 341</td>
</tr>
<tr>
<td>CARBURETOR</td>
</tr>
<tr>
<td>1 EA</td>
</tr>
<tr>
<td>DAA625-03-C-1056</td>
</tr>
<tr>
<td>M41 02/08</td>
</tr>
</tbody>
</table>

MFD DATE 01/08
EXP DATE 01/09
SER NO 1157

*MFD and EXP Date for Shelf Life Items and Serial Numbers only if Applicable.

*Application of the linear bar codes is not required when the 2D (PDF417) identification symbol is used.
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 & 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 (256)

*For units with UII
Exterior Container Label Example

2910-00-456-7416
CAGE 57685
PN 341
3 EA
DAA625-07-M-1056
M41 02/08
WT 30

*Application of the linear bar codes is not required when the 2D (PDF417) identification symbol is used.
Exterior Containers with linear (Code 39) bar codes

# 1 - IDENTIFICATION MARKINGS
- National Stock Number
- Cage Code
- Part Number
- Quantity and Unit of Issue
- Contract Number & Lot Number
- Military Method & Date of Unit Preservation
- Weight (LBS)
- Serial Number(s)

# 2 - LINEAR BAR CODES
- National Stock Number
- Contract Number
- Cage Code
- Contract Line Item Number (CLIN)
- Contractor Shipment Number
- Serial Number (List inside)

# 3 - ADDRESS MARKINGS
MILITARY SHIPMENT LABEL (MSL)

6025-01-248-9073
CAGE 19207
PN 622-7345-002
20 EA
F0603-07-M-0860
M10 – 11/07
WT 55
SERIAL NUMBER
LIST INSIDE

*For containers without UII

Exterior Containers with 2D (PDF417) symbol*

# 1 - IDENTIFICATION MARKINGS
- National Stock Number
- Cage Code
- Part Number
- Quantity and Unit of Issue
- Contract Number & Lot Number
- Military Method & Date of Unit Preservation
- Weight (LBS)
- Serial Number(s)

# 2 - 2D (PDF417) Symbol Data with (Data Identifiers)
- National Stock Number (N)
- Contract Number (8K)
- Cage Code (17V)
- Contract Line Item Number (4K)
- Contractor Shipment Number (8K)
- Serial Number(s) (6)
- Unique Item Identifier (1286)

# 3 - ADDRESS MARKINGS
MILITARY SHIPMENT LABEL (MSL)

6025-01-248-9073
CAGE 19207
PN 622-7345-002
20 EA
F0603-07-M-0860
M10 – 11/07
WT 55
SERIAL NUMBER
LIST INSIDE

*For containers with UII
The label contains Address Markings

The 2D Bar Code contains Address Markings and Inventory Control Information

DTR Part II Appendix L Paragraph O provides information on the construct of a TCN when there is no TCN and no Requisition Document Number (MILSTRIP/DLMS) identified in the contract/purchase order/delivery order.
Special Markings

- Shelf-life
- Project Code
- Fragile/Delicate
- Method 50
- Expedited Handling
- Hazardous Materials
Special Markings

Shelf-life

Shown below identification data on unit, intermediate and exterior containers

• **TYPE I (non-extendable):**
  MFD DATE  10/01
  EXP DATE  10/06

• **TYPE II (extendable):**
  ASSEMBLED DATE  10/01
  INSPECTION/TEST DATE  10/04

• **RUBBER or ELASTOMER (TYPE I OR II):**
  CURED DATE  4Q01
  INSPECTION/TEST DATE  4Q05
Special Markings

Project Code

9GF

Special Handling

Method 50

Electrostatic Discharge (ESD) Sensitive

Unit Pack

Intermediate and Exterior Pack
Special Markings

Expedited Handling
Special Markings
DOT Hazardous Materials

• Proper Shipping Name
• UN Number
• Hazard Labels

Cargo Aircraft Only Label

UN Performance Specification

Example of a Single or Combination Marking:

\[
\text{UN} \quad 4G / Y \ 7.4/ S \ /99/USA /DOD
\]
(a) The United Nations Symbol
(b) Type of Packaging Code
(c) Packing Group:
\[
X = 9G I, II and III
Y = 2G II and III
Z = 2G III Only
\]
(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
HEAT TREATED
Wood Packaging Material

Required for all Wood Packaging Material (WPM). WPM is defined as wood pallets, skids, load boards, pallet collars, wooden boxes, reels, dunnage, crates, frames, and cleats.

(a) **Trademark** - Symbol, logo or name of the accredited agency
(b) **Facility** - product manufacturer name, brand or assigned mill number
(c) **Heat Treated Mark** - (HT or DH-when dielectric heating is used)
(d) **Country Code** - The two letter ISO country abbreviation
(e) **Approved International Symbol** for compliant wood packing material.
(f) Indication for use as dunnage (DUN or DUNNAGE).
MIL-STD-147
Palletization

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
• Provides bonding methods and load patterns

* MIL-STD-147 1E1 (23 DEC 13) - WPM to include dunnage, shall comply and be marked IAW ISPM 15 requirements.
Radio Frequency Identification
RFID
(Passive)

- DFARS Clause 252.211-7006 (Sep 2011)
- Tags that meet the EPCglobal™ Class 1 Generation 2 standard and are globally unique.
- Applied at case and palletized-unit-load levels
- WAWF used to submit advance shipment notice (ASN) with RFID tag IDs
- Affixed at appropriate locations IAW MIL-STD-129 tag placement specifications

Official Website
Contains List of “Ship to” Locations and Supplier Guide
Useful Websites

RFID

Packaging Code Look-up
https://camphill.leidos.com/code_lookup.nsf/codecheck

Defense and Federal Specifications
http://quicksearch.dla.mil/

DLA Land and Maritime Packaging
http://www.landandmaritime.dla.mil/offices/packaging/pkgsitemap.asp

American Lumber Standard Committee (WPM)
http://www.alsc.org/WPM_summary_mod.htm

Key Specifications

- MIL-STD-2073-1E  Standard Practice for Military Packaging
- MIL-STD-2073-1D  Standard Practice for Military Packaging
- MIL-STD-129     Military Marking for Shipments and Storage
- MIL-STD-147     Palletized Unit Loads
- MIL-DTL-117     Bags, Heat-Sealable
- MIL-DTL-6060    Bags, Watervaporproof, Heat-Sealable, Complex
- MIL-STD-3010    Test Procedures for Packaging Materials
- ASTM D3951     Standard Practice for Commercial Packaging
- ASTM D1974     Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes
- ASTM D5168     Standard Practice for Fabrication and Closure of Triple Wall Corrugated Fiberboard Containers

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