

INCH-POUND

MIL-C-70998 (AR)  
w/AMENDMENT 4  
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SUPERSEDING  
MIL-C-70998 (AR)  
w/AMENDMENT 3  
8 October 1997

## MILITARY SPECIFICATION

### CONTAINER, SHIPPING AND STORAGE, CARTRIDGE, 25mm, PA125 GENERAL SPECIFICATION FOR

This specification is approved for use by the US Army Armament, Munitions and Chemical Command, and is available for use by all Departments and Agencies of the Department of Defense.

#### 1. SCOPE

1.1 This specification covers the general requirements for Container, Shipping, and Storage, Cartridge, 25mm, PA125, hereinafter called 'the container'. The container is used for holding ammunitions during usage, shipping and storage (see 6.1).

#### 2. APPLICABLE DOCUMENTS

2.2 Government documents.

Comments, suggestions, or questions on this document should be addressed to: Commander, U.S. Army ARDEC, ATTN: RDAR-QES-E, Picatinny Arsenal, New Jersey 07806-5000 or e-mailed to [ardecstdzn@conus.army.mil](mailto:ardecstdzn@conus.army.mil). Since contact information can change, you may want to verify the currency of this information using ASSIST Online database at <https://assist.dla.mil>.

AMSC N/A

FSC 8140

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2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents shall be listed in the issue of the department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation. (See 6.2)

SPECIFICATIONS

FEDERAL

TT-C-490 - Chemical Conversion Coatings and Pretreatments for Ferrous Surfaces for Organic Coatings

MILITARY

MIL-W-63150 - Weapons and Support Material Standard Quality Assurance Provisions for

MIL-W-12332 - Welding, Resistance, Spot, Seam, and Projection; for Fabricating Assemblies of Low Carbon Steel

STANDARDS

MILITARY

MIL-STD-171 - Finishing of Metal and Wood Surfaces

MIL-STD-406 - Visual Inspection Standards for Terne Plate Cans and Steel Boxes Used in Small Arms Ammunition Packaging

MIL-STD-414 - Sampling Procedures and Tables for Inspections by Variables for Percent Defectives

(Copies of these documents are available online at <https://assist.dla.mil/quicksearch/> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.1.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

DRAWINGS

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER (ARDEC)

12576143 - PA125 Ammunition Container Assembly  
12576144 - Body Assembly  
12576152 - Cover Assembly

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12998172 - Coatings, High Performance (For Ammunition Containers)

(Copies of these drawings may be requested online at [pica.drawing.request@conus.army.mil](mailto:pica.drawing.request@conus.army.mil) or from U.S. Army ARDEC, ATTN: RDAR-AIS-TD, Picatinny Arsenal, NJ 07806-5000.)

2.2 Non-Government publications. The following document(s) form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the document cited in the solicitation (See 6.2).

AMERICAN SOCIETY FOR TESTING AND MATERIALS INTERNATIONAL  
(ASTM)

ASTM B 117 - Method of Test for Salt Spray (Fog) Testing

(Copies may be ordered from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, <http://www.astm.org>).

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document shall take precedence. Nothing in this document, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

### 3. REQUIREMENTS

3.1 Materials. Materials shall be accordance with the applicable drawings and specifications.

3.2 Components and assemblies. The components and assemblies shall comply with all requirements specified on Drawing 12576143, all associated drawings, and with all requirements specified in applicable specifications and standards.

#### 3.3 Temperature.

3.3.1 Elevated temperature (storage). The container shall not suffer permanent damage when subjected to constant temperature of +163° F minimum for a period of 24 hours (after temperature stabilization) and shall meet the requirements of 3.4 when returned to a minimum temperature of 50° F.

#### 3.4 Performance.

3.4.1 Cover assembly. The locking hardware shall be operable manually. The cover assembly shall be removable manually without the use of exorbitant force. The gasket shall remain secure in the correct position within the cover upon removal of the cover assembly. The gasket shall not stick to, be cut or split by contact against the top edge of the body assembly. The

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cover shall be completely removable manually, without special tools, without the use of exorbitant force and shall be easily resealed.

3.4.2 Hasp and latch. Mating parts of the body hasp and latches shall engage without requiring deformation of any container part, and the latches shall close and open freely. When closed the latches of the assembled container shall remain closed until manually opened.

3.4.3 Spring loaded handles. Handles shall be spring loaded. Handles shall be extendable without the use of exorbitant force (not to exceed 5 lbs.). Handles shall retract to within mounting hardware when not in use.

3.5 Airtightness. The assembled container shall withstand, without leakage, a minimum air pressure differential of three pounds per square inch (PSI).

3.6 Weld procedure. Fabrication of the container shall be in accordance with the recorded welding procedure requirements of MIL-W-12332.

3.7 Protective coating.

3.7.1 Pretreatment. The cleaning method and pretreatment process used shall comply with the requirements of Dwgs. 12576144 and 12576152. The phosphate coating shall comply with finish 5.1.1 of MIL-STD-171.

3.7.2 Paint. The paint coating shall comply with the requirements of Dwgs. 12576144 and 12576152. In addition, the coating shall comply with the requirements of MIL-STD-406. Adhesion of the paint to the pretreated surfaces shall comply with the applicable requirements of MIL-STD-171, Finish 5.1.1.

3.7.3 Corrosion resistance. The exterior surface of the box shall show no visible evidence of paint blistering, creepage (loss of adhesion), or corrosion of base metal in excess of 1/8 inch on either side of the score marks, or rusting of parts of the hardware subject to pressure of abrasion in normal use or exceeding the standards permissible in MIL-STD-406, or more than five (5) scattered blisters or corrosion spots having individual diameters greater than 3/16" in diameter in any 4 X 12 inch flat area, excluding score marks, after exposure to a 5% solution of salt spray for 96 hours.

3.8 Gasket compression. The gasket compression of the container shall be as specified by Dwg. 12576143.

3.9 Weld security.

3.9.1 Hasp assembly. Each hasp of the body assembly shall comply with the weld security requirement of drawing 12576144 without permanent deformation or failure of a weld.

3.9.2 Handle assembly. The handles of the body assembly shall withstand a pull of 600 pounds, minimum, without permanent deformation of a component or failure of a weld.

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3.9.3 Latch assembly. The latch assemblies of the cover assembly shall comply with the weld security requirement of drawing 12576152 without breakage or permanent deformation of any components or welds.

3.10 Concavity and convexity.

3.10.1 Cover assembly. The cover assembly shall meet the requirements of Dwg. 12576152 for flatness.

3.10.2 Body assembly. The top edges of the body assembly shall meet the requirements of Dwg. 12576144.

3.11 First Article. When specified in the contract or purchase order, a sample shall be subjected to first article inspection in accordance with technical provisions herein (see 4.3).

3.12 Workmanship. The workmanship requirements of the Container Assemblies shall be visually examined to determine compliance with the following requirements. The quality of Workmanship shall not adversely affect safety, function, performance, serviceability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: cracked or split components, extraneous material, steel parts, burrs or sharp edges, scores and gouges, mutilated metal components, missing operations, improper assembly, missing parts, stains, corrosion, non specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding (except for bottom seam weld) straightening, bending, etc.)

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified herein, or in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items must meet all requirements of section 3 and 5. The inspection set forth in this purchase description shall become a part of contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance if any defective material.

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4.2 Classification of inspection. The following types of inspection shall be conducted on this item:

- a. First Article Inspection (see 4.3)
- b. Conformance Inspection (see 4.4)

4.3.1 Submission. The contractor shall submit a first article sample as designated by the Contracting Officer for evaluation in accordance with provisions of 4.3.2. The first article sample shall consist of the items in sample quantities as indicated.

4.3.2 Inspection to be performed. First article material shall be tested in accordance with Table I. Any test samples may be subjected, by the Government, to any or all of the examinations and tests specified herein, in the contract or on the applicable drawings.

4.3.3 Rejection. If any component or assembly fails to comply with the requirements, the First Article sample shall be rejected. The Government reserves the right to terminate its inspection upon the failure of any item material to comply with any of the stated requirements. In the event of rejection, the Government reserves the right to require the contractor to take corrective action and submit a new First Article quantity.

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TABLE I. First Article Inspection  
**CLASSIFICATION OF CHARACTERISTICS**

PARAGRAPH	TITLE	SHEET 1 of 1		DRAWING NUMBER 12576143
	Container Assembly			NEXT HIGHER ASSEMBLY
CLASSIFICATION	EXAMINATION OF TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
	<u>Temperature</u> 1/	7	3.3	4.6.1
	<u>Performance</u> 1/	7	3.4	4.6.2
	<u>Airtightness</u> 1/	7	3.5	4.6.3
	<u>Pretreatment</u> - 3 standard panels per TT-C-490 1/	7	3.7.1	4.6.4
	<u>Paint film thickness and adhesion</u> 1/	7	3.7.2	4.6.5, 4.6.5.2
	<u>Corrosion Resistance</u> 1/	7	3.7.3	4.6.6
	<u>Gasket compression.</u> 1/	7	3.8	4.6.7
	<u>Weld Security</u>		3.9	4.6.8
	Hasp 1/	7	3.9.1	
	Handle 1/	7	3.9.2	
	Latch 1/	7	3.9.3	
	<u>Concavity and convexity</u>		3.10	4.6.9
	Cover Assembly 1/	7	3.10.1	
	Body Assembly 1/	7	3.10.2	
<b>Notes:</b>				
1/ Accept on zero defects, reject on one defect.				

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4.4 Quality conformance inspection.

4.4.1 Inspection lot formation. The term “inspection lot” is defined as a homogeneous collection of units of product from which a representative sample is drawn or which is inspected 100 percent to determine conformance with applicable requirements. Units of product selected for inspection shall represent only the inspection lot from which drawn and should not be construed to represent any prior or subsequent quantities presented for inspection. Homogeneity shall be considered to exist provided the inspection lot should have been produced by one manufacturer, in one unchanged process, using the same materials and methods, in accordance with the same drawings, same drawing revisions, and same specifications and specification revisions and complies with the provisions for submission of product. All material submitted for inspection in accordance with this specification shall comply with the homogeneity criteria specified herein, regardless of the type of inspection procedure which is being applied to determine conformance with requirements.

4.4.1.1 Lot identification. The cover and body assemblies of each container of the lot shall be identified as specified by Dwgs 12576152 and 12576144 supplemented as directed by the procuring activity.

4.4.2 Examination and tests.

a. Classification of characteristics. Quality conformance examinations and tests are specified in the following Classification of Characteristics paragraphs. The contractor’s quality program or detailed inspection system shall provide assurance of compliance of all characteristics with the applicable drawing and specification requirements utilizing as a minimum the conformance criteria specified. When cited herein, attributes sampling inspection shall be conducted in accordance with Table II using inspection levels stated in the Classification of Characteristics paragraphs.



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Table II. Attribute sampling inspection

<u>Lot Size</u>	<u>Inspection Levels</u>		
	<u>V</u>	<u>VI</u>	<u>VII</u>
2 to 8	*	*	*
9 to 15	*	*	13
16 to 25	*	20	13
26 to 50	32	20	13
51 to 90	32	20	13
91 to 150	32	20	13
151 to 280	32	20	20
281 to 500	48	47	29
501 to 1200	73	47	34
1201 to 3200	73	53	42
3201 to 10000	86	68	50
10001 to 35000	108	77	60

Number under inspection levels indicate sample size; asterisks (\*) indicate one hundred percent inspection. If sample size exceeds lot size, perform one hundred percent inspection. Accept on zero and reject on one or more for all inspection levels.

b. Alternative quality conformance. Alternative quality conformance procedures, methods, or equipment, such as statistical process control, tool control, other types of samples procedures, etc., may be used by the contractor when they provide, as a minimum, the level of quality assurance required by the provisions specified herein. Prior to applying such alternative procedures, methods, or equipment, the contractor shall describe them in a written proposal submitted to the Government for evaluating (see 6.9). When required, the contractor shall demonstrate that the effectiveness of each proposed alternative is equal to or better than the specified quality assurance provision(s) herein. In cases of dispute as to whether the contractor's proposed alternative(s) provides equivalent assurance, the provisions of this specification shall apply. All approved alternative provisions shall be specifically incorporated into the contractor's quality program plan or detailed inspection system, as applicable.

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QUALITY CONFORMANCE INSPECTION  
CLASSIFICATION OF CHARACTERISTICS

PARAGRAPH	TITLE	SHEET 1 OF 1		DRAWING NUMBER 12576143
4.4.2.1	PA125 Ammunition Container Assembly			NEXT HIGHER ASSEMBLY
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERNCE
Critical	None Defined.			
Major				
101	Performance (before temp) <u>2/</u>	20 0-1	3.4	4.6.1
102	Performance (after temp) <u>2/ 3/</u>	20 0-1	3.4	4.6.1, 4.6.2
103	Airtightness <u>2/</u>	LEVEL V	3.5	4.6.3
104	Pretreatment <u>2/</u>	Note <u>1/</u>	3.7.1	4.6.4
105	Paint film thickness and adhesion <u>2/ 3/</u>	3/	3.7.2	4.6.5.1, 4.6.5.2
106	Gasket compression <u>2/</u>	LEVEL V	3.8	SMTE
107	Corrosion resistance <u>2/</u>	3/	3.7.3	4.6.6
Minor				
201	Evidence of poor workmanship	Level VII	3.12	Visual
NOTES: <u>1/</u> 3 Standard panels per TT-C-490 <u>2/</u> Accept on zero defects, reject on one defect <u>3/</u> Samples for this test shall be taken from Major 101.				

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QUALITY CONFORMANCE INSPECTION  
CLASSIFICATION OF CHARACTERISTICS

PARAGRAPH	TITLE		SHEET 1 OF 1		DRAWING NUMBER 12576144
4.4.2.2	Body Assembly				NEXT HIGHER ASSEMBLY 12576143
CLASSIFICATION	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
Critical	None defined				
Major					
101	Inside width, body assembly, min		Level V	3.2	SMTE
102	Inside length, body assembly, min		Level V	3.2	SMTE
103	Inside depth, body assembly, min		Level V	3.2	SMTE
104	Convexity or concavity top edges of body		Level V	3.10.2	SMTE
105	Interior of exterior paint missing or nonconforming		Level V	3.7.2	Visual <u>1</u> /
106	Hasp assembly		20 0-1	3.9.1	4.6.8.1
107	Handle assembly		20 0-1	3.9.2	4.6.8.2
Minor					
201	Poor workmanship		Level VII	3.12	Visual

NOTES:

1/ MIL-STD-406 shall be used as a guide to classify paint defects. Missing, damaged or incomplete paint shall be classified as a defect. In the standard, defects classified as incidental shall be considered permissible; defects classified as minor shall be considered major and shall be cause for rejection. Bare spots on any subassembly which do not accumulate to exceed 1/2 square inch in area or scratches which do not penetrate to the phosphate coating shall be disregarded.

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QUALITY CONFORMANCE INSPECTION  
CLASSIFICATION OF CHARACTERISTICS

PARAGRAPH	TITLE	SHEET 1 OF 1		DRAWING NUMBER 12576152
4.4.2.3	Cover Assembly			NEXT HIGHER ASSEMBLY 12576143
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
Critical	None Defined			
Major				
101	Width, inside cover (2 places)	Level V	3.2	SMTE
102	Interior of exterior paint missing or nonconforming	Level V	3.7.1, 3.7.2	Visual <u>1/</u>
103	Flatness	Level V	3.10.1	SMTE
104	Weld security of latch	Level V	3.9.3	4.6.8.3
105	Missing, inverted, misaligned, loose or defective gasket	Level V	3.4.1	Visual – Manual <u>2/</u>
Minor				
201	Poor workmanship	Level VII	3.12	Visual

NOTES:

1/ MIL-STD-406 shall be used as a guide to classify paint defects. Missing, damaged or incomplete paint shall be classified as a defect. In the standard, defects classified as incidental shall be considered permissible; defects classified as minor shall be considered major and shall be cause for rejection. Bare spots on any subassembly which do not accumulate to exceed 1/2 square inch in area or scratches which do not penetrate to the phosphate coating shall be disregarded.

2/ If the gasket is missing, inverted, broken, split or torn, contains a gross defect in texture, fit or can be shifted horizontally with retainer by finger pressure or manual shake off the cover assembly, the sample unit shall be classified as defective.

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QUALITY CONFORMANCE INSPECTION  
CLASSIFICATION OF CHARACTERISTICS

PARAGRAPH	TITLE	SHEET 1 OF 1		DRAWING NUMBER 12576143
4.3.2.4	Container Assembly			NEXT HIGHER ASSEMBLY
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
Critical	None Defined			
Major				
101	Cracked or split component	LEVEL V	3.12	Visual
102	Missing, incomplete, improper assembly of component	LEVEL V	3.12	Visual
103	Missing, incomplete or improper welds	LEVEL V	3.12	Visual
104	Mutilated metal component	LEVEL V	3.12	Visual <u>1/</u>
105	Steel sliver, burr or sharp edge	LEVEL V	3.12	Visual - Manual <u>2/</u>
106	Outside height	LEVEL V	3.2	SMTE
107	Outside length	LEVEL V	3.2	SMTE
108	Outside width	LEVEL V	3.2	SMTE
Minor				
201	Marking incorrect, incomplete, illegible or missing	LEVEL VI	3.2	Visual
202	Foreign matter, except corrosion	LEVEL VI	3.12	Visual
203	Poor workmanship	LEVEL VII	3.12	Visual
NOTES:				
<u>1/</u> If the body or cover is severely dented or malformed, or the closing or locking hardware is bent or otherwise distorted to cause functional failure or become a personnel hazard, the sample unit shall be classified defective.				
<u>2/</u> If a steel sliver, burr or sharp edge which could injury unprotected hands is found on a handle, the bottom edge of a latch or cover skirt, or on the top or bottom edges of the body, the sample unit shall be classified defective.				

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4.4.3 Testing. The tests listed shall be performed on each lot in compliance with the test methods and procedures specified by 4.6. For acceptance, the results of each test shall apply with the applicable requirements.

4.4.3.1 Performance. Failure of one or more units of the sample to comply with the specified performance requirements shall be cause for rejection of the lot.

4.4.3.2 Airtightness. Failure of one or more units of the sample to comply with the specified requirements shall be cause for rejection of the lot.

4.4.3.3 Phosphate coating. Failure of the phosphate coating on the standard panels to comply with the applicable requirements for appearance and minimum weight, shall be cause for rejection of all container subassemblies phosphated since the preceding test.

4.4.3.4 Paint adhesion. Failure of any unit of the sample to comply with the requirements for paint adhesion shall be cause for rejection of the lot.

4.4.3.5 Corrosion resistance. Failure of any unit of the sample to comply with the requirements for corrosion resistance shall be cause for rejection of the lot.

4.4.3.6 Variable inspection plan. A variables inspection plan from MIL-STD-414, Table B-3 shall be used to determine lot acceptability, applying the method of calculation as shown in Example B-3. Failure of the sample to meet the acceptability criterion shall be cause for rejection of the lot.

4.4.3.7 Weld security. Failure of any unit of the sample to comply with the specified requirements for weld security of hasp assemblies, latch assemblies or handle assemblies shall be cause for rejection of the lot.

4.4.3.8 Convexity or concavity. Failure of four or more units of the sample to comply with the requirements for convexity or concavity shall be cause for rejection of the lot. If two or three units of the sample fail to comply with the requirement, a second sample consisting of the same number of units as specified for the first sample shall be tested. If in the accumulated samples, five or more units fail to comply with the requirement the lot shall be rejected. The sampling plan shall apply independently to cover and body assemblies.

4.4.4 Packaging, packing and marking inspection. There are no packaging or packing requirements applicable to this item.

4.4.5 Classification of defects. The classification of defects shall be as follows:

4.5 Inspection equipment.

4.5.1 Contractor – furnished inspection equipment.

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4.5.1.1 Government design. Unless otherwise specified in the contract, all inspection equipment identified by drawing number in specifications forming a part of the contract shall be supplied by the contractor in accordance with the design specified. The contractor may, however, propose alternatives to Government designs for approval in accordance with 6.3.

4.5.1.2 Contractor design. The contractor shall design and supply inspection equipment compatible with the “Methods of Inspection” specified in 4.6 of this specification and with the component inspection procedures specified in the paragraph 3.8 requirements of MIL-W-63150 whenever Government designs are not specified (see 4.6.1.1). Construction shall be such as to facilitate routine calibration of test equipment. Contractor inspection equipment designs shall be submitted for approval in accordance with 6.3.

4.6 Methods of inspection.

4.6.1 Elevated temperature storage. The container shall meet the requirements of 4.6.2 prior to testing. Environmentally condition the container as specified in 3.3.1. After conditioning reinspect the container in accordance with 4.6.2 for compliance to the requirements.

4.6.2 Performance. The container shall be inspected to assure compliance with the requirements of 3.4 through the following procedure:

- a. Unlock and lock the cover assembly hardware by hand leverage. Note the locking and unlocking action for effectiveness and ease of operation.
- b. Remove and replace the cover assembly. Note any misfit or bind with body assembly.
- c. Remove all cover assemblies. Inspect the gasket for fit, security, cuts and splits.
- d. Note any sticking of gaskets to the top edges of the body assemblies.
- e. Engage each of the handles by hand and release. Handle shall return to within mounting hardware. No binding or misalignment shall occur.

4.6.3 Airtightness. The container shall be conditioned to a minimum temperature of 50°F and ambient pressure prior to testing. The containers shall be tested in accordance with 4.6.3.1 or with permission of the procurement agency with 4.6.3.2, to the requirements of 3.5. A wetting agent may be used to minimize air bubbles clinging to the exterior surface.

4.6.3.1 Vacuum method. The container shall be tested for leakage by immersing the closed container in the inverted position under water in a vacuum vessel and lowering the pressure in the vessel to three pounds per square inch minimum below ambient

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pressure. Observation for leakage of air from the container interior shall be made for a minimum of 30 seconds after reduction of pressure. A steady stream of five or more bubbles from any single surface, joint, or gasket shall be evidence of a defective container and cause rejection.

4.6.3.2 Hot water method. The container shall be tested for leakage by immersing the closed container, in the inverted position, to a depth of one inch below the surface of the water. The temperature of the water and the length of time of immersion shall be that which will assure an increase in pressure to a minimum of 3 psi above ambient pressure. Observation for air leakage from the container interior shall be made during the period of pressure build-up and for 30 seconds after the 3 psi pressure differential has been reached. A steady stream of five or more bubbles from any single surface, joint, or gasket shall be evidence of a defective container and cause rejection.

4.6.4 Pretreatment. The method of test shall be as specified in TT-C-490, as applicable to the type of phosphate used. The prescribed panels shall be processed with cover or body assemblies to be represented, beginning with the start of daily production and at 4 hour intervals, maximum, thereafter. Appearance and weight of the phosphate coating on the panels shall be recorded against the batch of cover or body assemblies represented.

4.6.5 Paint.

4.6.5.1 Paint thickness. The method of test shall be as specified in TT-C-490. The test shall be performed on three (3) randomly selected surfaces of each unit of the sample.

4.6.5.2 Paint adhesion. The method of test shall be as specified in TT-C-490. The test shall be performed on three (3) randomly selected surfaces of each unit of the sample.

4.6.6 Corrosion resistance. The method of test shall be as specified in ASTM B117 - Standard Practice for Operating Salt Spray (FOG) Apparatus. Using a sharp instrument (machinist scribe or equivalent), the painted specimens shall be scribed in a vertical direction approximately 6 to 7 inches long on the flat portion of each side, the bottom, the hinge end, and the cover. The sample shall be positioned so that the hinged edge of the assembled box is elevated approximately 15 degrees from the horizontal and rests upon a wooden support while the cover face is parallel to the principal direction of horizontal flow of fog through the chamber. Traces of paint blistering or corrosion spots on component edges or sharp corners shall not be classed as protective coating failure. After salt spray testing, the scribe shall be evaluated according to ASTM D1654, Procedure A, Methods 1 or 2.

4.6.7 Gasket compression. The method of test shall be specified to determine compliance to the requirement of 3.8 (see 6.7).

4.6.8 Weld security. The container and its subassemblies shall be tested to the requirements of 3.9.



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4.6.8.1 Hasp assembly. The sample body assembly resting on its bottom shall be clamped in a suitable device. The specified tensional force shall be slowly applied perpendicular to the bottom and against the underside of the offset of the hasp. The force shall be applied at a rate of .125 to .25 inch per minute and held for one minute. After removal of the force, examine the hasp for distortion and weld failure.

4.6.8.2 Handle assembly. With sample body assembly resting on its bottom or on end, attach a suitable device to each end handle. With one held, apply the specified tensional force through the other parallel to the container bottom against the ferrule of each handle. The force shall be applied at a rate of .125 to .25 inch per minute and held for one minute. After removal of the force, examine the handle and hasp for distortion and weld failure.

4.6.8.3 Latch assembly. Attach a suitable device to each latch on the cover assembly. Secure one and slowly apply a tensional force to the other parallel to the face of the cover. The force shall be applied at a rate of .125 to .25 inch per minute and held for one minute. Apply the force against the surface of the latch links exposed on the underside of each latch. After removal of the force, examine the latches, latch links, latch link retainers and cover for distortion and weld failure.

4.6.9 Concavity and convexity. The container and its subassemblies shall be tested to the requirements of 3.10.

4.6.9.1 Cover assembly. The concavity and convexity shall be measured on the sample cover assemblies along the length of the cover in the area above the cover gasket and the width adjacent to latch link retainer on the flat surface of the cover.

4.6.9.2 Body assembly. The concavity and convexity shall be measured on the sample bodies along the length and width of the top edge.

## 5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system command. Packaging data retrieval is available from the managing Military Department or Defense Agency, automated packaging files, CDROM products, or by contacting the responsible packaging activity.

## 6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

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6.1 Intended use. The containers described herein are to be used for holding of ammunition during usage, shipping and storage.

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number and date of this specification.
- b. Place of inspection, if not place of manufacture.
- c. Issue of DoDISS to be cited in the solicitation and if required, the specific issue if individual documents referenced (see 2.1.1 and 2.2).
- d. When first article is required (see 3.11).
- e. Provisions for the submission and approval of the welding procedure.
- f. Requirements for quality conformance inspection sampling plan.

6.3 Submission of contractor inspection equipment designs for approval. Submit two copies of designs are required to: Commander, U.S. Army AMCCOM, ATTN: SMCAR-QAF-I (D), Picatinny Arsenal, NJ 07806-5000. This address will be specified on the Contract Data Requirements List, DD Form 1423, in the contract.

6.4 First article. When first article inspection is required, the contracting officer should provide specific guidance to offerors whether item(s) should be a first article sample, a first production item, or a standard production item from the contractor's current inventory and the number of items to be tested as specified in 4.3. The contracting officer should include specific instructions in acquisition documents regarding arrangements for examinations, approval for article testing results and disposition of first article. Invitations for bids should be provided that the Government reserves the right to waive the requirement for samples for first article inspection to those bidders offering a product which has been previously acquired or tested by the Government, and that bidders offering such product, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract.

6.5 Drawings. Drawings listed in Sections 2 of this specification under the heading U.S. Army Armament Research, Development and Engineering Center (ARDEC) may also include drawings prepared by, and identified as, U.S. Army Armament Research and Development Command (ARRADCOM), Edgewood Arsenal, Frankford Arsenal, Rock Island or Picatinny Arsenal drawings. Technical data originally prepared by these activities is now under the cognizance of ARDEC

6.6 Intermediate point inspection. The classification of defects identifies the defects characteristics (among other things) for acceptance inspection. It may be necessary to modify the sequence of inspection stations to best suit the manufacturing

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process. Inspection for characteristics which will be hidden or altered by subsequent processing operations (including unrelated operations), should be scheduled to prevent premature acceptance or rejection, which could be detrimental to the attainment of optimum product quality in the end item.

6.7 Measurement of gasket compression.- Three point contact of the container resting on blocks may be used to overcome any rocking motion which might be encountered with the container resting on the surface plate. However, since the measurement technique relies upon relative distances, care should be taken to assure that there is no displacement on the referenced surfaces between the readings

6.8 Subject term (key word) listing.

Cover assembly  
Body assembly  
Hasp and latch  
Gasket compression  
Concavity and convexity  
Pretreatment  
Phosphate  
Paint

6.9 Submission of alternative inspection provisions. Unless otherwise specified in the contract, proposed alternatives quality conformance provisions will be submitted by the contractor for evaluation by the technical activity responsible for the preparation of this specification.

6.10 Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Custodian:  
Army-AR

Preparing Activity  
Army-AR

(Project 8140-2011-007)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.