

MIL-C-70470 (AR)
16 July 1984

MILITARY SPECIFICATION

CONTAINER, FIBER, FOR BULK PROPELLANT

This specification is approved for use by the U.S. 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 one type of fiber container used for shipping and storage of bulk propellant.

2 APPLICABLE

2.1 Government documents

2.1.1 Specifications and standards. Unless otherwise specified here (6.4), the following specifications and standards of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDSS) specified in the solicitation, form a part of this specification to the extent specified herein.

SPECIFICATIONS

MILITARY

MIL-STD-883C - Ammunition, Standard Quality Assurance Provisions, General

STANDARDS

MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes

2.1.2 Other Government documents, drawings and publications.

The following other Government documents, drawings and publications form a part of this specification to the extent specified herein.

FSC 8140

Be official comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, U.S. Army Armament Research and Development Center Attn: DRSMC QA Division, New Jersey 07800 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

MIL-C-70470 (AP)

DRAWINGS

U.S. ARMY ARMAMENT RESEARCH AND DEVELOPMENT CENTER

9342857 - Container, Fiber

(Copies of specifications standards, handbooks, drawings, and publications required by manufacturers in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or requested for proposal shall apply.

AMERICAN SOCIETY FOR TESTING AND MATERIALS

ASTM-D412 - Rubber Properties in Tension, Standard Test Method for

ASTM-D3951 - Standard Practice for Commercial Packaging

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence.

3. REQUIREMENTS

3.1 Materials. Materials and parts shall be in accordance with applicable drawings and specifications.

3.2 Containers. The containers shall comply with all requirements specified on dwg. 9342857 and associated drawings and with all requirements specified in applicable specifications and standards.

3.3 First Article Inspection. This specification contains technical provisions for first article inspection. Requirements for the submission of first article samples by the contractor shall be as specified in the contract.

3.4 Workmanship. Workmanship shall be in accordance with the highest grade of commercial industry practice for this type of work. The containers shall be clean, free of damage, or any defects which may affect their performance for the intended use.

MIL-C-70470 (AR)

4 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection and standard quality assurance provisions. Unless otherwise specified herein or in the contract, the provisions of MIL-A-48078 shall apply and are hereby made a part of this detail specification.

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

- a First Article Inspection
- b Quality Conformance Inspection

4.3 First article inspection

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 twelve (12) containers and five (5) gaskets.

4.3.2 Inspection to be performed. See MIL-A-48078 and Table I specified herein.

4.3.3 Rejection. See MIL-A-48078.

TABLE I First article inspection

CLASSIFICATION OF DEFECTS & TESTS

MIL-C-70470 (AR)

MLD-C-70470 (AR)

PARAGRAPH	TITLE	SHEET		NO. OF SAMPLE UNITS	EXAMINATION OR TEST	AQL OR 100%	REQUIREMENT PARAGRAPH	DRAWING NUMBER	
								1	9342857
	Container, Fiber and Gasket							NEXT HIGHER ASSEMBLY	
CATEGORY								PARAGRAPH REFERENCE	INSPECTION METHOD
	Examination for defects (see note) 120 hour spray and drop test Ply separation and bonding test Compression test Tensile load on gasket	12 3 3 3 5		3 2				4.4.2.1 4.5.1 4.5.2 4.5.3 4.5.5	

NOTE

The examination for defects shall be performed on the containers prior to performance of the other container tests.

MIL-C-70470 (AR)

4.4 Quality conformance inspection.

4.4.1 Inspection lot formation. Inspection lots shall comply with the lot formation provisions of MIL-A-48078. In addition, inspection lots of containers shall contain material from lots with the same interfix number from one manufacturer.

4.4.2 Examination - See MIL-A-48078. Unless otherwise specified in the Classification of Defects and Test Tables, sampling plans and procedures for major and minor defects shall be in accordance with MIL-STD-105, Inspector Level II.

QUALITY CONTROL PRODUCTION

MTI-C-70470 (AP)

CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH	TITLE	NO. OF SAMPLE UNITS	SHEET 1 OF 1		DRAWING NUMBER 9342857
4.4.2.1	Fiber Container		AQL OR 100%	REQUIREMENT PARAGRAPH	NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST				PARAGRAPH REFERENCE INSPECTION METHOD
Critical	None defined				
Major					
101	Inside height of container		0.40%	3	Gage
102	Inside diameter of container		0.40%	3.1	Gage
103	Length of top chime, minimum (min.)		0.40%	3.1	Gage
104	Length of bottom chime, min.		0.40%	3.1	Gage
105	Casket not secure to cover		0.65%	3.1	Visual--Manual
106	Component assembled improperly		0.65%	3.1	Visual
107	Component missing or damaged		0.65%	3.1	Visual
108	Closure latch not properly engaged		0.65%	3.1	Visual
Minor					
201	Certificate of Maker's stamp, missing or incorrect		1.0%	3.1	Visual
202	Evidence of poor workmanship		1.0%	3.4	Visual
Notes					

to be used until exhausted

160, 1 Aug 83 replaces edition of 1 Jul 77 which

MSWC-CA (0)

MIL-C-70470 (AR)

4.4.3 Testing

4.4.3.1 120 hour spray and drop test using a 250 pound dry weight and a 48 inch drop height (see dwg 93432857), Major defect. Four (4) containers shall be randomly selected for this test. If one or more containers fails to meet the requirement, the lot shall be rejected. The test shall be performed in accordance with 4.5.1.

4.4.3.2 Ply separation and bonding test (see dwg. 9342857), Major defect. Five (5) containers shall be randomly selected for this test. If one or more containers fail to meet the requirement, the lot shall be rejected. The test shall be performed in accordance with 4.5.2.

4.4.3.3 Compression test (see dwg 9342857), Major defect. Five (5) containers shall be randomly selected for this test. If one or more containers fail to meet the requirement, the lot shall be rejected. The test shall be performed in accordance with 4.5.3.

4.4.3.4 Tensile load on gasket joint (see dwg. 9342857), Major defect. Five (5) gaskets shall be randomly selected from each lot for this test. If any gasket fails to meet the requirement, the lot shall be rejected. The test shall be performed in accordance with 4.5.4.

4.4.4 Inspection equipment. The inspection equipment required to perform the examinations and tests prescribed herein is described in the 'Paragraph Reference Inspection Method' column in the tables starting with paragraph 4.4.2.1 and in 4.5. The contractor shall submit for approval, inspection equipment designs in accordance with the terms of the contract. See Section 6 of MIL-A-48078 and 6.2 herein.

4.5 Methods of inspection (see 6.3)

4.5.1 120 hour spray and drop test using a 250 pound dry weight and a 48 inch drop height. The test shall be performed in accordance with dwg. 9342857.

4.5.2 Ply separation and bonding test. The test shall be performed in accordance with dwg 9342857.

4.5.3 Compression test. This test shall be performed in accordance with dwg. 9342857.

4.5.4 Tensile load on gasket. This test shall be performed in accordance with ASTM-D412.

MIL-C-70470 (AR)

5. PACKAGING

5.1 Packaging requirements. None required.

5.2 Packing and marking shall be in accordance with ASTM-D3951-82.

6. NOTES

6.1 Ordering data. See MIL-A-48078.

6.2 Submission of inspection equipment for design approval See MIL-A-48078. Submit designs as required to: Commander, US Army Armament Research and Development Center, ATTN: DRSMC-QAR-I, Dover, New Jersey 07801.

6.3 Prior approval of the Contracting Officer is required for use of equivalent test methods. A description of the proposed method should be submitted through the Contracting Officer to: Commander, US Army Armament Research and Development Center, ATTN: DRSMC-QAR-Q, Dover, New Jersey 07801. This description should include but not be limited to the accuracy and precision of the method, test data demonstrating the accuracy and precision and drawings of any special equipment required.

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INSTRUCTIONS In a continuing effort to make our standardization documents better the DoD provides this form for use submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (*DO NOT STAPLE*) and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

NOTE This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

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STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions - Reverse Side)

1 DOCUMENT NUMBER

2 DOCUMENT TITLE

3a NAME OF SUBMITTING ORGANIZATION

4 TYPE OF ORGANIZATION (Mark one)

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b ADDRESS (Street City State ZIP Code)

5 PROBLEM AREAS

a Paragraph Number and Wording

b Recommended Wording

c Reason Rationale for Recommendation

b REMARKS

7a NAME OF SUBMITTER (Last First MI) - Optional

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c MAILING ADDRESS (Street City State ZIP Code) - Optional

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