

INCH-POUND

A-A-59209  
15 April 1998  
SUPERSEDING  
MIL-B-20390B(AR)  
20 March 1972

COMMERCIAL ITEM DESCRIPTION  
PAPERBOARD, AMMUNITION CONTAINER

The General Services Administration has authorized the use of this Commercial Item Description (CID) as a replacement of MIL-B-20390 for all federal agencies.

1. SCOPE. This CID covers the general requirements for one type of paperboard suitable for making spirally or convolutedly wound cylinders for packaging artillery ammunition.

2. SALIENT CHARACTERISTICS.

2.1 Materials. The material shall be high quality paperboard, made with no liner or coating and slack sized for good glue penetration. The material shall be capable of being formed into spirally or convolutedly wound cylinders without cracking.

2.2 Color. The board shall be gray to tan but may have variations in the hue and shade and may contain specks, as might be caused by making it from mixed waste paper.

2.3 Form. The material shall be furnished in flat cut sheets or in rolls, as specified (see 6.2).

2.3.1 Flat sheets. Flat sheets shall be of the length, width, and associated tolerances specified in the contract or order (see 6.2).

2.3.2 Rolls.

2.3.2.1 Paperboard dimensions. Rolled paperboard shall be of the width, length, and associated tolerances specified in the contract or order (see 6.2).

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, US Army TACOM-ARDEC, Attn.: AMSTA-AR-EDE-S, Bldg 12, Picatinny Arsenal, NJ 07806-5000 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8140

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A-A-59209

2.3.2.2 Cores. When required, rolled paperboard shall be rolled on cores having the construction, dimensions, and tolerances specified in the contract or order (see 6.2).

2.3.2.3 Multiple strip rolls. When required, multiple strips of paperboard shall be rolled on a single core as specified in the contract or order (see 6.2).

2.3.2.4 Splices. Splices shall be neatly made, extend the full width of the roll, and be flagged with colored markers. No more than two splices are allowed per roll.

2.4 Thickness. The thickness shall be as specified in the contract order (see 6.2). Tolerances shall be in accordance with Table I.

2.5 Basis weight. For each nominal thickness specified, the basis weight of the paperboard shall be as specified in Table I as determined in accordance with ASTM D646.

2.6 Bursting strength. For each nominal thickness specified, the bursting strength shall be as specified in Table I as determined in accordance with ASTM D774M.

TABLE I. Thickness, weight and bursting strength

Thickness, (inches)		Weight, (pounds) per 1000 sq. ft. (See Note 1)	Bursting Strength, minimum, (psi) (See Note 2)
Nominal	Tolerance		
0.016	± 0.001	62 ± 6	48
0.017	± 0.001	66 ± 6	51
0.018	± 0.001	69 ± 7	54
0.019	± 0.001	73 ± 7	57
0.020	± 0.001	76 ± 8	60
0.021	± 0.001	80 ± 8	62
0.022	± 0.001	83 ± 8	64
0.023	± 0.001	86 ± 9	66
0.024	± 0.001	89 ± 9	68
0.025	± 0.001	93 ± 9	70
0.026	± 0.001	96 ± 10	72
0.027	± 0.001	100 ± 10	74
0.028	± 0.001	103 ± 10	76
0.029	± 0.001	107 ± 10	78
0.030	± 0.001	110 ± 10	80
0.031	± 0.001	114 ± 10	82
0.032	± 0.001	117 ± 10	84
0.033	± 0.001	120 ± 10	86
0.034	± 0.001	124 ± 10	88

TABLE I. Thickness, weight and bursting strength - Continued

Thickness, (inches)		Weight, (pounds) per 1000 sq. ft. (See Note 1)	Bursting Strength, minimum, (psi) (See Note 2)
Nominal	Tolerance		
0.035	± 0.001	127 ± 10	91
0.036	± 0.001	130 ± 10	93
0.037	± 0.0015	133 ± 10	96
0.038	± 0.0015	136 ± 10	98
0.039	± 0.0015	139 ± 10	101
0.040	± 0.0015	142 ± 10	104
0.041	± 0.0015	144 ± 10	106
0.042	± 0.0015	147 ± 10	109

Note 1: Weight shall be determined in accordance with ASTM D646

Note 2: Bursting strength shall be determined in accordance with ASTM D774M

2.7 Moisture content. The moisture content of the paperboard shall be from 4.0 to 7.0 percent, as determined in accordance with Test Method T 412 of the TAPPI standard.

2.8 Acidity or alkalinity. The paperboard shall have a pH value of 6.0 to 7.5.

2.9 Processability.

2.9.1 Mandrel size. The paperboard shall be capable of being wound, without cracking or tearing, around a mandrel of the size specified in the contract or order (see 6.2).

2.9.2 Adhesive compatibility. The paperboard shall be capable of bonding to itself when wound using the type of adhesive specified in the contract or order (see 6.2).

2.10 Workmanship. The paperboard shall be free from pieces of unmacerated paper larger than ¼ square inch in area, wax, asphalt, metallic or abrasive materials, slime, blisters, holes, tears, scuffs, and wrinkles.

3. REGULATORY REQUIREMENTS. The offeror/contractor is encouraged to use recovered material to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

4. QUALITY ASSURANCE PROVISIONS.

4.1 Product Conformance. The products provided shall meet the salient characteristics of this commercial item description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The government reserves the right to require proof of such conformance.

5. PACKAGING. Preservation, packing, and marking shall be as specified in the contract or order.

6. NOTES.

6.1 Source of documents.

A-A-59209

6.1.1 Government documents. The Code of Federal Regulations (CFR) is available by mail order from the Superintendent of Documents, ATTN: New Order, PO Box 371954, Pittsburgh, PA 15250-7954.

6.1.2 ASTM standards. ASTM standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM-D646	Standard Test Method for Grammage of Paper and Paperboard
ASTM-D774M	Standard Test Method for Bursting Strength of Paper

6.1.3 TAPPI standards. TAPPI standards are available from the Technical Association of the Pulp and Paper Industry, P.O. Box 105113, Atlanta, GA 30348.

TAPPI-T412	Moisture in Paper and Paperboard
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6.2 Ordering data. Procurement documents should specify the following:

- a. Title, number, and date of this CID.
- b. Issue of Department of Defense Index of Standards and Specifications (DoDISS) to be cited in the solicitation, and if required, the specific issue of individual documents referenced.
- c. Flat sheets (see 2.3.1):
  - 1.) Length, width, and associated tolerances (see 2.3.1).
  - 2.) Nominal thickness (see 2.4).
- d. Rolls (see 2.3.2):
  - 1.) Length, width, and associated tolerances (see 2.3.2.1).
  - 2.) Core construction and dimensional tolerances, if applicable (see 2.3.2.2).
  - 3.) Whether or not multiple strips are to be wound on single core and, if so, details such as how many, spacing, and etc., as applicable (see 2.3.2.3).
  - 4.) Nominal thickness (see 2.4).
- e. Processability requirements, as applicable (see 2.9).
  - 1.) Mandrel size (see 2.9.1).
  - 2.) Adhesive to be used (see 2.9.2).
- f. Packaging and marking requirements (see 5).

MILITARY INTEREST:

Custodian:

Army-AR

Navy-OS

Review Activities:

Army-EA

CIVIL AGENCY COORDINATING ACTIVITY:

GSA-FSS

Project 8140-0188

Preparing Activity:

Army-AR

# STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

## INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of 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.

### I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER  
A-A-59209

2. DOCUMENT DATE (YYMMDD)  
980415

Paperboard, Ammunition Container

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

### 5. REASON FOR RECOMMENDATION

### 6. SUBMITTER

a. NAME (Last, First, Middle Initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Include Area Code)  
(1) Commercial  
(2) AUTOVON  
(if applicable)

7. DATE SUBMITTED  
(YYMMDD)

### 8. PREPARING ACTIVITY

a. NAME

b. TELEPHONE (Include Area Code)  
(1) Commercial  
(973) 724-2163

(2) AUTOVON  
880-2163

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