

UU-C-282D  
July 24, 1974  
 SUPERSEDING  
 Fed. Spec. UU-C-282C  
 November 21, 1963

## FEDERAL SPECIFICATION

### CHIPBOARD

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

#### 1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers chipboard used for general protection and packaging where strength and appearance are not essential.

1.2 Classification. The chipboard covered by this specification shall be the plain type of paperboard.

1.2 Dimensions. Chipboard shall be of thickness and size, as specified (see 3.3 and 6.2)

#### 2. APPLICABLE DOCUMENTS

2.1 The following documents, of the issues in effect on date of invitation for bids, form a part of this specification to the extent specified herein.

##### Federal Specifications:

PPP-B-636 - Boxes, Shipping, Fiberboard.

PPP-F-320 - Fiberboard: Corrugated and Solid, Sheet Stock (Container Grade), and Cut Shapes.

##### Federal Standards:

Fed. Test Method Std. No. 101 - Preservation, Packaging and Packing Materials: Test Procedures.

Fed. Std. No. 123 - Marking for Domestic Shipment (Civil Agencies).

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at the price indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U. S. Government Printing Office, Washington, DC 20402.

(Single copies of this specification and other product specifications required by activities outside the Federal Government for bidding purposes are available without charge from Business Service Centers at the General Services Administration Regional Offices in Boston, New York, Washington, DC, Atlanta, Chicago, Kansas City, MO, Fort Worth, Denver, San Francisco, Los Angeles, and Seattle, WA.

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

##### Military Standards:

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

MIL - STD -129 - Marking for Shipment and Storage.

(Copies of Military Specifications and Standards required by suppliers in connection with specific procurement functions should be obtained from the procuring 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 a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal shall apply.

##### Uniform Freight Classification Committee, Agent:

Uniform Freight Classification.

FSC 8135

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(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

National Motor Freight Traffic Association, Incorporated, Agent:

National Motor Freight Classification.

(Application for copies should be addressed to the American Trucking Association, Inc., Tariff Order Section, 1616 P Street N. W., Washington, DC 20036.)

3. REQUIREMENTS

3.1 Material. Chipboard shall be prepared by processing materials to insure compliance with the requirements of this specification. The chipboard shall be plain and shall not be coated or lined. Two or more plies can be combined.

3.2 Form and size. Chipboard shall be furnished in sheet form which shall be cut to the size specified (see 6.2). The tolerances for the width and length dimensions are minus zero inch and plus 1/4 inch. Unless otherwise specified, the size (in inches) shall be one of the following: 8 x 10 1/2; 10 x 11-1/4; 26 x 38; 48 x 96.

3.3 Color. The color shall be natural and may have variations in shade.

3.4 Thickness. The thickness of the sheets shall be as specified (see table I and 6.2) with a tolerance of plus or minus 0.003 inch when tested as specified in 4.5.3.

3.5 Basis weight. The basis weight of chipboard shall be as specified (see table I and 6.2) with a tolerance of plus or minus 5 percent when tested as specified in 4.5.2.

Table I Physical Requirements

<u>Thickness average inch</u>	<u>Basis weight pounds per 1000 square feet</u>
0.095	315
0.060	206
0.040	120
0.025	90
0.020	72

3.6 Workmanship. Chipboard shall be free from surface lumps, clip indentations, wrinkles, cracks, breaks, blows, blisters, split edges, soil and mechanical imperfections which may impair its serviceability.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or 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 reserved the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

4.1.2 Inspection. Sampling for inspection shall be performed in accordance with MIL-STD-105, except where otherwise indicated.

4.2 Component and material inspection. In accordance with 4.1 above, components and materials shall be inspected and tested in accordance with all the requirements of referenced specifications and standards, unless otherwise excluded, amended, or qualified in this specification or applicable purchase documents.

4.3 Inspection of the end item.

4.3.1 Examination of the end item. Examination of the end item shall be made in accordance with the classification of defects, inspection levels and acceptable quality levels (AQLs) set forth below. The lot size for purpose of determining the sample size shall be expressed in units of sheets of chipboard for examination in 4.3.2 and in units of bundles for examination in 4.3.3.

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4.3.2 Examination of the end item for defects in material, construction, appearance and workmanship. The sample unit for this examination shall be one sheet of chipboard. Not more than five sheets shall be selected from any one bundle randomly selected throughout the lot.

Examine	Defect
Material	Not plain
Construction and appearance	Coated.
	Lined.
	Not natural color.
Width and Length	Not flat; any bow, warp, wrinkle, crease, fold or curl which affects serviceability.
	Less than either specified dimension.
	More than a 1/4 inch for either specified dimension.
Workmanship	Any scuff, hole, cut, tear, lump, crack, chip break, blow or other surface defect which would impair serviceability.
	Ragged, uneven or crushed edge.
	Foreign matter embedded in surface.

4.3.3 Examination of the end item for average quantity per bundle. The sample unit for this examination shall be one bundle of chipboard. The average quantity per bundle of all sample units shall be not less than the specified.

4.3.4 Examination of preparation for delivery. An examination shall be made to determine whether the packaging, packing and marking comply with the requirements of section 5. Defects shall be scored as specified in Table II. Sampling shall be in accordance with MIL-STD-105. The sample unit shall be one container fully prepared for delivery. The lot shall be the number of containers offered for inspection at one time. The inspection level shall be S-2 with an AQL of 4.0 expressed in terms of defects per hundred units.

Table II. Examination of preparation of delivery

Examine	Defects
Containers	Not as specified.
Contents	Not as specified.
Markings	Omitted; incorrect; illegible; improper size, location, sequence or method of application.
Materials	Component missing or damaged.
Workmanship	Bulging or distortion of containers. Cushioning inadequate, improper or missing.

4.3.4.1 Examination of closure waterproofing and reinforcing of containers. When shipping containers are required to comply with PFP-B-636, examination for defects in closure, waterproofing and reinforcing shall be in accordance with the appendix of that specification.

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4.3.5 Inspection levels and acceptable quality levels (AQLs) for examinations. The inspection levels for the purpose of determining the sample size and the acceptable quality levels (AQLs) expressed in defects per 100 units, shall be as follows:

Examination paragraph	Inspection level	AQL
4.3.2	S-4	6.5
4.3.3	S-4	-

4.4 Tests. Test procedures and controls which differ from those specified herein, may be used by the supplier if they provide a quality assurance equivalent to that specified. If the Government inspection activity determines that such procedures and control do not provide as a minimum, such quality assurance, the supplier will use the test procedures set forth herein. In case of dispute as to test results, the test methods specified herein will govern.

4.5 Testing of end item. Tests shall be performed on samples representing each lot of chipboard sheets offered for acceptance to determine compliance with the requirement set forth in table III. The sample unit shall consist of 144 square inches of chipboard and no more than one sample unit shall be selected from a bundle of sheets. The sample size shall be ten. Failure to meet specification requirement based on the average determination found for each characteristic shall be cause for rejection.

4.5.1 Instructions. The instructions for testing the end item shall be as specified in table III.

TABLE III. Instructions for testing the end item

Characteristic	Specification reference		Requirements applicable to:		Number determinations per unit <sup>1</sup>	Numerically to nearest 2
	Requirement	Test method	Lot average			
Basis Weight	Table I	4.5.2	x		1	0.1 pound
Thickness	Table I	4.5.3	x		average of 2 per sheet	0.001 inch

<sup>1</sup>For characteristics on which multiple determinations are specified per unit, the determinations shall randomly distributed throughout the sample unit. For each characteristic, the results of the determinations on each sample unit shall be averaged to obtain the results for that sample unit. The average of the unit averages shall be not less than specification requirements.

<sup>2</sup>Test reports shall include all values on which average results are based.

4.5.2 Basis weight. The basis weight shall be determined in accordance with method 5022 of Fed. Test. Test Method Std. 101.

4.5.3 Thickness. The thickness shall be determined in accordance with method 1003 of Fed. Test Method Std. 101.

## 5. PREPARATION FOR DELIVERY

5.1 Packaging. Packaging shall be level A, B or C as specified (see 6.2).

5.1.1 Level A or B. Chipboard of the size, thickness and quantity specified (see 6.2) shall be furnished in bundles of  $50 \pm 3$  pounds, 80, 100 or 1000 sheets, except size 96 inches by 48 inches which does not require packaging. Sheets shall be tied with cotton braid or other material to hold the sheets firmly in bundles.

5.1.2 Level C. Chipboard shall be packaged to afford adequate protection against damage during shipment from the supply source to the first receiving agency.

5.2 Packing. Packing shall be level A, B, or C as specified (see 6.2).

5.2.1 Level A. Chipboard, packaged as specified in 5.1, shall be packed in a box conforming PPP-B-636, class weather resistant, except size 96 inches by 48 inches shall be packed on a pallet platform specified in section 5 of PPP-F-320. The box shall be closed in accordance with Method II, waterproof-

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ed and reinforced as specified in the appendix to the box specification.

5.2.2 Level B. Chipboard, packaged as specified in 5.1 shall be packed in a box conforming to PPP-B-636, class domestic, except size 96 inches by 48 inches shall be packed in accordance with 5.2.1. The box shall be closed in accordance with Method II of the appendix to the box specification.

5.2.3 Level C. Chipboard, in quantities as specified (see 6.2), packaged as specified in 5.1, shall be packed in containers to assure carrier acceptance and safe arrival at destination. Containers shall comply with Uniform Freight Classification or National Motor Freight Classification, as applicable.

5.3 Marking. In addition to markings required by the contract or order, the packages and shipping containers shall be marked in accordance with Fed. Std. No. 123 for civil agencies or MIL-STD-129 for military agencies.

## 6. NOTES

6.1 Intended use. Chipboard described by this specification is intended for use as backings for tablets, pads, pictures, mirrors, photographs, bindery or mail.

6.2 Ordering data. Purchases should exercise any desired options offered herein and procurement documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) Size required (see 3.2).
- (c) Thickness required (see 3.4).
- (d) Basis weight required (see 3.5).
- (e) Whether sheets are to be furnished in 50 ± 3 pounds, 80, 100 or 1000 sheets-bundles (see 5.1.1).
- (f) Selection of level of packaging and packing required (see 5.1 and 5.2).
- (g) Quantities required (see 5.1.1, 5.2.3).
- (h) Marking document required (see 5.3).

### USER INTEREST

ARMY - GL

### REVIEW AGENCY

ARMY - PA

### CIVIL AGENCY INTEREST:

GSA-FSS

### Preparing activity:

GSA-FSS