

[INCH-POUND]
 A-A-2800
 May 25, 1993
 SUPERSEDING
 ZZ-C-766
 September 14, 1977

COMMERCIAL ITEM DESCRIPTION

CUSHION, CHAIR AND STOOL

The General Services Administration has authorized the use of this commercial item description in preference to Federal Specification ZZ-C-766.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This commercial item description covers requirements for chair and stool cushions intended for office use.

1.2 Classification. Cushions shall be of the following classes, styles, colors, and sizes (Table I), as specified (see 6.1).

Class 1 - Woven rattan fabric or knitted fabric on one side of the cushion and cotton/polyester corduroy on the reverse side.

Class 2 - Cloth cover.

Style A - Circular

Style B - Rectangular

Color a - Dark brown

Color b - Green

Table I. Cushion Dimensions

Size No.	Diameter		Depth		Width		Thickness	
	in	(mm)	in	(mm)	in	(mm)	in	(mm)
1	15	(381.0)	-	-	-	-	1	(25.4)
2	-	-	15	(381.0)	16	(406.4)	1	(25.4)
3	-	-	17.5	(444.5)	18.5	(469.9)	1	(25.4)
4	-	-	15	(381.0)	16	(406.4)	1.5	(38.1)
5	-	-	17.5	(444.5)	18.5	(469.9)	2	(50.8)

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data which may improve this document should be sent to: General Services Administration, Engineering Group (7FXEE), 819 Taylor St., Fort Worth, TX 76102

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2. APPLICABLE DOCUMENTS

2.1 The documents referenced in this commercial item description shall be the issues in effect on the date of issuance of the invitation for bids or request for proposals unless otherwise specified. These documents form a part of this commercial item description to the extent specified. In the event of a conflict between this commercial item description and a document referenced herein, this commercial item description shall take precedence.

Federal Standards:

- FED-STD-191 - Textile Test Methods.
- FED-STD-376 - Preferred Metric Units For General Use By The Federal Government.
- FED-STD-751 - Stitches, Seams, and Stitching.

Commercial item description:

- A-A-52094 - Thread, Cotton.

Copies of Federal standards and commercial item descriptions are available from the General Services Administration Business Service Centers in Boston, MA; New York, NY; Philadelphia, PA; Washington, DC; Atlanta, GA; Chicago, IL; Kansas City, MO; Fort Worth, TX; Denver, CO; San Francisco, CA; Los Angeles, CA; and Seattle, WA, and the GSA Specifications Unit (3FBP-W), Suite 8100, 470 E. L'Enfant Plaza, S.W., Washington, DC 20407.

Federal Regulation:

- Federal Trade Commission - Rules and Regulations under the Textile Fiber Products Identification Act.

Copies may be obtained from the Federal Trade Commission, Washington, DC 20580.

Military Standard:

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

Copies of military standards may be obtained from Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

ASTM Standards:

- D 3453 - Flexible Cellular Materials - Urethane for Furniture and Automotive Cushioning, Bedding, and Similar Applications.
- D 3490 - Flexible Cellular Materials - Bonded Urethane Foam.
- E 29 - Standard Practice For Using Significant Digits In Test Data To Determine Conformance With Specifications.

Application for copies of ASTM standards should be addressed to ASTM, 1916 Race Street, Philadelphia, PA 19103.

3. SALIENT CHARACTERISTICS**3.1 Material.**

3.1.1 Urethane foam. The urethane foam shall be in accordance with ASTM D 3453, grade number 34 or 44 (English units) and shall have a minimum polymer density of 1.6 lb/ft³ (25.6 kg/m³).

3.1.2 Bonded urethane foam. Bonded urethane foam shall be in accordance with ASTM D 3490, grade UBU 42 or UBU 60 and shall have a density of not less than 4.5 lb/ft³ (721 kg/m³) nor greater than 6.5 lb/ft³ (104.1 kg/m³). The individual shredded cellular urethane particles of which the material is composed shall not exceed 1/2 inch (12.7 mm) in diameter.

3.1.3 Covering, Class 1. One side of the class 1 cushion (sizes 4 and 5) shall be covered with dark brown or green color cotton corduroy or alternately 70% cotton/30% polyester blend corduroy in the same colors (see 6.1). The corduroy shall show good colorfastness to perspiration and meet the physical requirements in Table II when tested as specified in paragraph 4.6 and Table IV. At the option of the contractor, the remaining side shall be covered as specified in 3.1.3.1 or 3.1.3.2.

3.1.3.1 Woven rattan fabric. The simulated woven rattan fabric used to cover the other side of the class 1 cushion shall be kraft fiber, clear coated with vinyl chloride or vinyl acetate resin. The woven rattan fabric may be a combination of dark and light colors in a single design. Material shall conform to the physical requirements shown in Table II when tested as specified in 4.6 and Table IV.

3.1.3.2 Knitted fabric. The knitted fabric shall meet the physical requirements specified in Table II when tested as specified in 4.6 and Table IV. The color of the knitted fabric shall be a combination of light and dark colors in a single design.

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3.1.4 Covering, Class 2. The woven cloth for the class 2 cushion shall be a mixture of cotton and synthetic fiber. The color shall be dark brown or green as specified (see 6.1). The cloth shall show good colorfastness to perspiration, and shall meet the physical requirements in Table II when tested as specified in paragraph 4.6.

3.1.5 Sewing thread. Seaming and stitching thread shall be in accordance with A-A-52094, type II, ticket number 16 or 24, 4 ply. The color of the thread shall match the color of the basic material. As an alternate, 100% polyester thread or cotton-covered polyester thread may be used for stitching the cushion covers.

3.2 Construction. Cushions (sizes 1, 2, and 3) shall be flat and the cover shall be fabricated from two pieces of the material specified in 3.1.4. The cover for sizes 4 and 5 cushions shall be of a box style construction. The boxing and one side of the cover shall be cotton corduroy, and the other side shall be woven rattan fabric as specified in 3.1.3.1. Alternatively, the boxing and one side shall be cotton corduroy, and the other side shall be knitted fabric as specified in 3.1.3.2. No raw edges shall show where boxing is joined. The sizes 4 and 5 cushions shall have corded piping consisting of kraft fiber coated with synthetic resin or vinyl extruded lipped welting. The welting shall extend around the entire perimeter of the top and bottom surface of the covering. The color of the welting shall be white or it shall be an approximate match of the color of the corduroy. The inner core for all sizes shall be of the material specified in 3.1.1 or 3.1.2 and shall be enclosed completely by the applicable covering specified for the class of cushion ordered.

3.3 Shape of cushions. Size 1 cushion shall be Style A (circular). Sizes 2, 3, 4, and 5 shall be Style B (rectangular). All sizes shall be rounded at the corners to a radius of 1.5 ± 0.5 inch (38.1 ± 12.7 mm) in front and 4 ± 0.5 inch (101.6 ± 12.7 mm) in back.

3.4 Straps for Size 1, Style A, cushions. Style A (circular) cushions shall have four straps securely attached to the cover of the cushions at the seam at four equidistant points on the perimeter. The length of the straps shall be not less than 10 inches (254.0 mm) and not more than 13 inches (330.2 mm). The width of the straps shall be $1 \pm 1/8$ inch (25.4 ± 4.8 mm). The straps shall be of the same material as the cover, of double thickness, and stitched lengthwise. The strap end shall be hemmed.

Table II. Physical requirements woven rattan fabric and knitted fabric.

FABRIC TYPE	MINIMUM WEIGHT oz/yd ² (g/m ²)	MINIMUM YARNS PER INCH (CM)		BREAKING STRENGTH MINIMUM LB (KG) FORCE (Grab Method)	
		Warp/Wale	Filling/ Course	Warp/Wale	Filling/ Course
Rattan 1/	13 oz (455 g)	20/in (7.9/cm)	12.5/in (5/cm)	110 lb (49.8 kg)	70 lb (31.7 kg)
Knit 2/	7 oz (245 g)	8.3/in (3.3/cm)	9/in (3.6/cm)	42 lb (19.0 kg)	25 lb (11.3 kg)
Corduroy 3/	7 oz (245 g)	8 to 22/in (3.2 to 8.8/cm)	N/A	5 lb (11.3 kg)	25 lb (11.3 kg)
Cloth 4/	5 oz (175 g)	N/A	N/A	35 lb (15.9 kg)	35 lb (15.9 kg)

- 1/ Rattan shall be defined as a kraft fiber (see 3.1.3.1).
- 2/ Knit shall be defined as nylon or polyester thread with twisted paper tissue over the thread then knit and coated with an acrylic dip finish (see 3.1.3.2)
- 3/ Cotton or cotton-synthetic blend (see 3.1.3).
- 4/ Woven cloth of cotton or cotton-synthetic blend thread (see 3.1.4).

3.5 Fit and appearance. The finished cover shall fit all parts of the cushion smoothly. The cover shall not be pulled so tightly that the fabric shows evidence of strain or that the stitching breaks or pulls loose. The cushion cover shall fit so that the cushion is free to spread as required.

3.6 Dimensions. Cushions shall conform to the applicable dimensions in Table I for the size specified. A tolerance of plus 1/4 inch (6.4 mm) and minus 1/8 inch (3.2 mm) shall be permitted on each dimension.

3.7 Seams and stitches. All joined seams shall be in accordance with FED-STD-751, stitch type 301. The seam allowance shall be a minimum width of 3/8 inch (9.5 mm). The cover shall be neatly and securely sewn from the inside except that the seam in the back of the pad may be sewn from the outside to allow for insertion of the foam rubber. Seams for sizes 4 and 5 shall be finished with corded piping or welting as specified in 3.2. All seams shall be sewn with 6 to 8 stitches per inch. Seams shall be straight and show no raw edges.

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3.8 Thread breaks and ends of seams. The ends of all seams and stitching, when not caught in other seams and stitching, shall be backstitched a minimum of 0.5 inch (12.7 mm). Thread breaks shall be backstitched a minimum of 0.5 inch (12.7 mm).

3.9 Fiber identification. Each cushion cover shall be labeled, ticketed, or invoiced for fiber content in accordance with the rules and regulations of the Textile Fiber Products Identification Act.

3.10 Label. Each cushion shall have a label attached conforming to the legal requirements of the state of manufacture. All labels on the Class 1 cushions (Sizes 4 & 5) shall be placed on the large side opposite the woven rattan or knitted fabric cover. The label for Style A cushions shall be on the same side as the straps. The National Stock Number (NSN) shall be on each label.

3.11 Workmanship. Each cushion shall conform to the quality and grade of product established by this specification. The occurrence of defects shall not exceed the acceptable quality levels (AQLs), specified herein.

3.12 Regulatory requirements. The offeror/contractor is encouraged to use recovered materials in accordance with Public Law 94-580 to the maximum extent practicable.

3.13 Metric products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, provided they fall within the tolerances specified using conversion tables contained in the latest revision of FED-STD-376, and all other requirements of this commercial item description are met.

3.14 Measurement system. The values stated in inch-pound units are to be regarded as the standard. The metric values stated in parentheses are for information purposes only.

3.15 Commercial item. The use of the term "commercial item description" in this document does not imply that any item or items offered are not required to conform with all requirements specified herein.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the contractor 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 that supplies and services conform to prescribed requirements.

4.2 Sampling. The levels of inspection and acceptable quality levels (AQLs) shall be in accordance with MIL-STD-105.

4.3 Lot Formation. All cushions of the same class, style, and size from the same manufacturer, offered for delivery at one time, shall be considered a lot for purposes of inspection and testing.

4.4 Sampling for visual and dimensional examination. A random sample of cushions shall be selected from each lot in accordance with inspection level S-4, AQL 4.0, expressed in terms of defects per hundred units. The sample cushions shall be visually and dimensionally examined to verify compliance with Table III and the remainder of this commercial item description. The sample unit shall be one cushion. All dimensions are absolute as defined in ASTM E 29.

4.5 Examination for preparation for delivery. A random sample of shipping containers shall be selected from each lot for examination of the unit, intermediate and shipping containers (as applicable) for conformance with the preservation, packaging, packing, labeling, and marking required in the contract or order. Samples shall be selected in accordance with inspection level S-2, AQL 6.5, expressed in terms of defects per hundred units. The sample unit shall be one shipping container.

Table III. Cushion Defects

Spots or stains of a permanent nature
 Removable spots or stains
 Cuts, tears, mends or burns
 Not approved color or type specified
 Material has objectionable odor
 Any part off shade
 Any component part or operation omitted
 Any part assembled on the bias
 Needle chews
 Seams puckered, twisted or pleated
 Piping loose or uneven
 Seams uneven, corners not rounded, or parts not aligned
 Raw edges any length
 Wrong seam or stitch type
 Loose stitch tension resulting in a loose seam
 Tight stitch tension (breaks when normal strain applied)
 Stitches per inch not as specified
 Label missing, incorrect or illegible
 Radii of corners not as specified
 Cover does not fit all parts smoothly and with an even amount of
 ease

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4.6. Tests. Tests shall be performed in accordance with FED-STD-191 for the characteristics specified in Table IV. The test sample shall be one finished cushion. The physical and chemical values specified in section 3 apply to the average of the test sample selected, for each applicable test method. The lot shall be unacceptable if one or more units fail to meet any requirement as listed in Table IV. The sample size for each characteristic shall be in accordance with inspection level S-1.

Table IV. Test Methods

Characteristic	Requirement reference	Test Method
Weight: ounces per square yard	3.1.3.1, Table II, and 3.1.3.2	5041
Yarns per inch	Table II	5050
Breaking strength	3.1.3.1, Table II, and 3.1.3.2	5100
Wales per inch (corduroy)	3.1.3.1	Visual
Wales and courses per inch	Table II	5070
Colorfastness to perspiration	3.1.3 and 3.1.4	5680

5. PREPARATION FOR DELIVERY

5.1 Packaging, packing, and marking. The packaging, packing, and marking shall be as specified in the contract or order.

6. NOTES

6.1 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents.

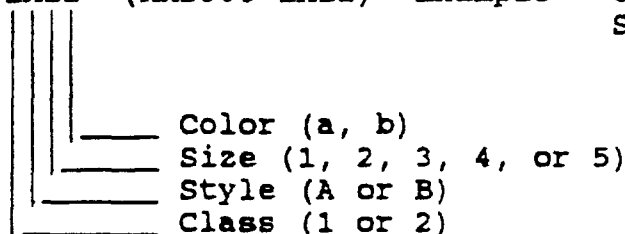
- a. Title, number and date of this commercial item description.
- b. Class, style, and size required.
- c. Color of cotton corduroy for class 1 (see 3.1.3).
- d. Color of fabric for class 2 (see 3.1.4).
- e. The packaging, packing, and marking desired.

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6.2 CID based part identification number (PIN). Cushions conforming with this commercial item description shall be identified by a part identification number configuration consisting of identification of a portion of the CID number, class, style and size. An example of the part identification number configuration is shown below. This part identification numbering system is intended for identification and cross-indexing of the item within the Federal cataloging system. Part identification numbers are not required to be placed on the product or container.

Part Identification Numbering System for CID A-A-2800

Example: AA2800-1A1a (AA2800-1A1a) Example - Class 1, Style A,
Size 1, Color a



6.3 National Stock Numbers (NSNs). The following is a list of NSNs assigned which correspond to this CID. The list may not be indicative of all possible NSNs associated with this CID.

NSN	Class	Style	Size	Color
7210-00-205-1173	2	B	2	Dark Brown
7210-00-205-1174	2	A	1	Dark Brown
7210-00-205-1175	2	B	3	Green
7210-00-205-3544	1	B	5	Green
7210-00-205-3545	1	B	4	Dark Brown

MILITARY COORDINATING ACTIVITY:

PREPARING ACTIVITY:

Custodian:

GSA - FSS

Air Force 99

Review Activity:

Air Force 82