

INCH-POUND

A-A-55187  
17 March 1993

## COMMERCIAL ITEM DESCRIPTION

### BRAID, TEXTILE (FLAT)

The General Services Administration has authorized the use of this Commercial Item Description in preference to Military Specification MIL-B-593.

Abstract. This flat braid is used as ornamentation on military uniforms and caps.

Classification. The braid shall be of the following types, classes, and widths as specified below:

- Type I - Mohair outer covering
  - Class 1 - 3/3 plain stitch (Hercules)  
Widths: 3/4, 1, 1-3/4, 2, and 2-1/2 inches
  - Class 3 - 2/2 plain stitch  
Widths: 1/2, 3/4, 1, 1-1/2, and 1-3/4 inches
- Type II - Nylon and mohair outer covering
  - Class 1 - 2/2 plain stitch  
Widths: 1/4, 1/2, 1-1/2, and 2 inches
- Type III - Cotton
  - Class 1 - Skipweave  
Width: 1-3/4 inches
  - Class 2 - 2/2 plain stitch  
Widths: 1/2, 3/4, 1, 1-1/2, and 2-1/4 inches
- Type IV - Cotton and nylon outer covering
  - Class 1 - 2/2 plain stitch  
Width: 1-1/2 inches

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Personnel Support Center, Clothing and Textiles Directorate, Attn: DPSC-FSSD, 2800 South 20th Street, Philadelphia, PA 19101-8419, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8315

DISTRIBUTION STATEMENT A.      Approved for public release;  
distribution is unlimited.

SALIENT CHARACTERISTICS

General description. The braid is used as ornamentation on military uniforms and caps as follows:

Navy:

- Sleeve braid - 1/4 inch, 1/2 inch, and 2 inch
- Boat cloaks - 1 inch and 2-1/2 inch

Army:

- Sleeve braid - 3/4 inch and 1-1/2 inch
- Trouser braid - 1/2 inch and 1-1/2 inch
- Slack braid - 1 inch
- USMA uniform - 1 inch and 2 inch
- Cap braid, skipweave - 1-3/4 inch

Air Force:

- Cap braid (Type I, Class 3) - 1-3/4 inch
- Sleeve braid (Type I, Class 3) - 1/2 inch and 3/4 inch

Marine Corps:

- Boat cloaks - 1/2 inch

Material. It is encouraged that recycled material be used when practical as long as it meets the requirements of this document.

Cotton yarn. The yarn for all types shall be combed, mercerized cotton yarn in the following nominal sizes:

- Type I
  - Class 1 - 40/2
  - Class 3 - 40/2 or 20/2
- Type II
  - Class 1 - 40/2
- Type III
  - Class 1 - 40/2
  - Class 2 - 30/2
- Type IV
  - Class 1 - 20/2

Mohair yarn. The mohair yarn shall not be lower in grade than 28's and shall be carded, combed, and spun on the worsted system; and shall be twisted into a nominal 2/28's count yarn.

Nylon yarn. The yarn shall be a continuous-filament, nominal 210 denier, 34 filament, nylon yarn.

Construction and physical requirements. The Type I braid shall be constructed with a cotton warp, and with a mohair outer covering. The Type II braid shall be constructed with a cotton warp, and with a nylon-mohair outer covering. The Type III braid shall be constructed with cotton yarn. The Type IV braid shall be constructed from a combination of cotton and nylon yarns. The braid shall conform to the following Table:

TABLE I - BRAID REQUIREMENTS

TYPE	CLASS	Width (inches) (min.)	Oz./per 144 yds (min.)	Lines	Picks per inch (min.)	Breaking strength lbs. (min)	Braiding Type
I	1	3/4	45	8	26	110	3/3 Hercules
I	1	1	62	12	26	170	3/3 Hercules
I	1	1-3/4	100	22	26	220	3/3 Hercules
I	1	2	110	24	24	300	3/3 Hercules
I	1	2-1/2	166	24	19	360	3/3 Hercules
I	3	1/2 <u>2/</u>	24	6	21	50	2/2 plain
I	3	3/4 <u>2/</u>	34	8	21	65	2/2 plain
I	3	1 <u>2/</u>	58	12	19	95	2/2 plain
I	3	1-1/2 <u>2/</u>	68	16	21	130	2/2 plain
I	3	1-3/4 <u>2/</u>	90	16	18	170	2/2 plain
II	1	1/4	12	3	23	40	2/2 plain
II	1	1/2	25	6	22	80	2/2 plain
II	1	1-1/2	68	16	22	210	2/2 plain
II	1	2	85	20	22	265	2/2 plain
III	1	1-3/4 <u>2/</u>	-	-	10	-	raid 2/skip2 (skipweave)
III	2	1/2	25	6	20	60	2/2 plain
III	2	3/4	40	10	20	115	2/2 plain
III	2	1	48	12	20	150	2/2 plain
III	2	1-1/2	72	16	21	160	2/2 plain
III	2	2-1/4	100	20	17	200	2/2 plain
IV	1	1-1/2	72	16	21	-	2/2 plain

1/ A Certificate of Compliance shall be submitted & will be acceptable for the stated requirements of: singeing finish and mercerization (microscopic examination).

2/ This is a required width with + 1/16 inch tolerance.

Color. The color of the finished braid shall be as specified in the contract; except that the color of Type III, Class 2 and Type IV, Class 1 shall be Black/Blue 3362. The use of sulfur dyes and dyes containing elementary sulfur or compounds capable of oxidation to sulfuric acid is prohibited. The dyed braid shall show no more labile sulfur than that shown by the standard sample when tested. When no standard is available, the finished braid shall show no more than a trace of labile sulfur.

Colorfastness. The dyed braid shall show fastness to perspiration, wet dry cleaning, and light equal to or better than the standard sample or equal to or better than a rating of "good," when tested in accordance with AATCC test methods in Table II. The dyed braid shall show fastness to crocking equal to or better than the standard sample or shall have an AATCC Chromatic Transference Scale rating of not less than 2.5.

Matching. The color of the dyed braid shall match the standard sample when viewed under filtered tungsten lamps that approximate artificial daylight and that have a correlated color temperature of  $7500 \pm 200$  K, with illumination of  $100 \pm 20$  foot candles, and shall be a good match to the standard sample under incandescent lamplight at  $2300 \pm 200$  K.

Standard sample. When a standard sample is available, the braid shall match the standard sample for shade and shall be equal to or better than the standard sample with respect to all characteristics for which the standard sample is referenced.

Finishing. The finished braid shall be singed. As an alternate, the yarn to be used to form the outer covering may be singed prior to braiding.

Shrinkage. The Type I, Class 3 and Type III, Class 2 braids shall shrink not more than 2.0 percent in length when tested in accordance with AATCC 99. The width of the braid, after being subjected to the shrinkage test, shall measure not less than the minimum width. (Minimum widths are given in the Table: BRAID REQUIREMENTS.)

Put-up and length. The 1/4 inch and 1/2 inch width braid shall be put-up on chipboard spools containing  $144 \pm 10$  yards each. The 3/4 inch to 2-1/2 inch width braids shall be put-up on single-width chipboard reels containing  $72 \pm 5$  yards each. There shall not be more than four lengths per spool for 144 yard spools, and not more than three lengths per reel for 72 yard reels. No one length shall be less than 5 yards. The end of the braid shall be fastened to prevent unwinding.

Workmanship. After completion, the braid shall be thoroughly cleaned, and all loose thread, lint, foreign matter removed; be free from objectionable odor and shall conform to the quality of product established by the commercial market. The occurrence of defects shall not exceed the applicable acceptable quality levels (AQLs).

Defects. The braid shall be examined for the following defects: not clean throughout; objectionable odor; identification marking missing, illegible, or incorrect; improperly or insecurely wound on spools, tangled and does not unwind properly; and not singed. The braid should not have any of the following: missing or broken yarn; hole, cut, or tear; abrasion mark, coarse or fine yarn, any slubs or knots; spot or stain, braiding that is loose or tight, and wavy outer edges (warp direction); width not as specified.

Label/markinq. Each spool or reel shall have a label attached in such a manner as to remain in place. All entries shall be legibly printed, stamped, or typed with water insoluble ink with the following information:

National Stock Number  
Nomenclature  
Specification Number  
Color, width, fiber content, class, and total yardage  
Contract Number and Date  
Contractor's Name

#### QUALITY ASSURANCE

Certification. The contractor shall certify, and maintain substantiating evidence, that the product offered meets the salient characteristics and requirements of this Commercial Item Description; and that the product conforms to the producer's own, specifications, standards and quality assurance practices. The government reserves the right to require proof of such conformance prior to the first delivery and thereafter as may be otherwise provided for, under the provisions of the contract. Reliance on contractor QA systems shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the government for acceptance comply with all requirements of the contract.

End item examination. The braid shall be examined at normal inspection distance (3 feet) for defects. The lot size shall be expressed in yards. The sample unit shall be 1 yard of braid.

TABLE II - END ITEM TESTING

Characteristic	Test Method
Yarn ply	Visual
Labile sulfur	FED STD 191-2020 <u>1/</u>
Colorfastness to:	
Perspiration	AATCC 15-1985
Wet drycleaning	AATCC 132-1985
Crocking	AATCC 8-1988
Light	AATCC 16A-1988
Weight (conditioned)	<u>2/</u>
Lines	Visual <u>3/</u>
Number of carriers	Visual <u>3/</u>
Ends per carrier	Visual <u>3/</u>
Total warp ends	Visual <u>3/</u>
Picks per inch	Visual <u>4/</u>
Breaking strength	ASTM D-5034-90 <u>5/</u>
Braiding type	Visual <u>6/</u>
Shrinkage, length	AATCC 99-1988 <u>7/</u>
Shrinkage, width	AATCC 99-1988 <u>7/</u>

- 1/ Contractor's certificate of compliance will be acceptable for this characteristic.
- 2/ See "Visual Examination."
- 3/ One determination per sample unit and the results reported as "actual count".
- 4/ Three determinations per sample unit and the results reported as the average of three determinations to the nearest whole number.
- 5/ Breaking strength shall be determined on the full width of the braid and the jaw dimensions shall be greater than the width of the braid.
- 6/ One determination per sample unit and the results reported as "pass" or "fail".
- 7/ Except that the width of the test specimen shall be the full width of finished braid.

Visual examination. The braid shall be inspected in accordance with "Sampling Procedures and Tables for Inspection by Attributes", ANSI/ASQC Z1.4, published by the American Society for Quality Control. The inspection level for visual examination shall be in accordance with ANSI/ASQC Z1.4. The inspection level shall be II and the Acceptable Quality Level (AQL), expressed in terms of defects per hundred units, shall be 4.0. The sample unit shall be 6 yards of the braid. The lot shall be unacceptable if one or more sample unit(s) fail to meet any requirement specified except that for weight.

For weight, the lot shall be unacceptable if the average of all sample units fails to meet the specified requirement. The sample size shall be in accordance with the following:

<u>Lot size (yards)</u>	<u>Sample size (number of sample units)</u>
800 or less	2
801 up to and including 22,000	3
22,001 and over	5

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

Certification of compliance. When certificates of compliance are submitted, the Government reserves the right to inspect such items to determine the validity of the certification.

**PACKAGING**

Packaging, packing, marking, and palletization.

Packaging, packing, marking and palletization shall be in accordance with ASTM-D 3951, Standard Practice for Commercial Packaging, as specified for shipments to the Department of Defense, including Section 7.

Packaging. Each spool or reel of braid shall be wrapped with transparent plastic film or bleached sulphite paper. The wrap shall be secured with gummed or pressure-sensitive tape.

Packing. Spools or reels of braid of one type, class, width, and color only, packaged as specified, shall be compactly packed in a snug-fitting fiberboard shipping container conforming to style RSC-L, type CF (variety SW) or SF, class domestic, grade 275. Liner for the shipping containers shall be DW.

Note: Each shipping container shall contain only one National Stock Number (NSN).

Marking. In addition to any special marking required by the contract or purchase order, unit packages and shipping containers shall be marked in accordance with MIL-STD-129.

Palletization. When specified, shipping containers shall be palletized in accordance with load Type Ia of MIL-STD-147. Pallet pattern shall be in accordance with the appendix of MIL-STD-147. The containers shall be bonded onto wing type commercial 4-way entry pallets.

All palletized loads shall contain only one NSN, to the maximum extent possible. When there is less than a pallet load per NSN, pallets may have containers not of the same NSN, but the pallet shall be clearly marked "mixed" and each applicable NSN shall be listed together with its total quantity.

Unitized loads, placing boxes on pallets, shall be used whenever total quantity for shipment to one destination exceeds 250 pounds (excluding the pallet) or 20 cubic feet. Pallets shall have a length of 40 inches and a width of 48 inches. Pallet loads, including the pallet, shall not exceed 54 inches in height, 43 inches in length and 52 inches in width.

Prohibited packing materials. The use of asbestos, excelsior, newspaper or shredded paper (all types including waxed paper, computer paper and similar hygroscopic or non-neutral material) are prohibited.

Source of Government documents. Copies of Military and Federal documents are available from:

Standardization Documents Order Desk  
Bldg. 4D  
700 Robbins Avenue  
Philadelphia, PA 19111-5094

Rules and Regulations Under The Textile Fiber Products Identification Act is available from:

Federal Trade Commission  
Washington, DC 20580

Sources of Non-government documents.

ANSI/ASQC Z1.4 - Sampling Procedures and Tables  
For Inspection By Attributes is available from:  
(Applications for copies should be addressed to:)  
American National Standards Institute  
1430 Broadway, New York, NY 10018-3308

ASTM-D 3951 - Standard Practice for Commercial Packaging  
(Applications for copies should be addressed to:)  
American Society For Testing and Materials  
1916 Race Street, Philadelphia, PA 19103-1187

Chromatic Transference Scale and the AATCC 61 - Colorfastness to  
Laundering, Home, and Commercial: Accelerated, is available from:  
American Association of Textile  
Chemists and Colorists (AATCC)  
P.O. Box 12215  
Triangle Park, NC 27709-2215

Custodians:  
Navy - NU  
Air Force - 11

Civil Agency Coordinating  
Activity:  
GSA - FSS

Review Activities:  
Army - GL  
Air Force - 82, 99

Preparing Activity:  
DLA - CT

User Activities:  
Navy - MC  
Air Force - 45

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