

INCH-POUND

MIL-B-593H

18 September 1990

SUPERSEDING

MIL-B-593G

15 June 1984

## MILITARY SPECIFICATION

## BRAID, TEXTILE (FLAT)

This specification is approved for use by all Departments and Agencies of the Department of Defense.

## 1. SCOPE

1.1 Scope. This specification covers flat braid used as ornamentation on military uniforms and caps.

1.2 Classification. The braid shall be of the following types, classes, and widths as specified (see 6.2).

- 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 used in improving this document should be addressed to: U.S. Army Natick Research, Development, and Engineering Center, Natick, MA 01760-5014 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

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## 2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

## SPECIFICATIONS

## FEDERAL

PPP-B-636 - Boxes, Shipping, Fiberboard

## MILITARY

MIL-L-35078 - Loads, Unit: Preparation of Semiperishable Subsistence Items; Clothing, Personal Equipment and Equipage; General Specification for

## STANDARDS

## FEDERAL

FED-STD-191 - Textile Test Methods

## MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes  
MIL-STD-129 - Marking for Shipment and Storage  
MIL-STD-147 - Palletized Unit Loads  
MIL-STD-731 - Quality of Wood Members for Containers and Pallets

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

2.2 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation.

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AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)

Chromatic Transference Scale

(Application for copies should be addressed to the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709-2215.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 3951 - Standard Practice for Commercial Packaging

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1187.)

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 First article. When specified (see 6.2), a sample shall be subjected to first article inspection (see 6.3) in accordance with 4.3.

3.2 Samples

3.2.1 Guide Samples. Samples, when furnished, are solely for guidance and information to the contractor (see 6.4). Variations from this specification may appear in the sample, in which case this specification shall govern.

3.2.2 Standard sample. The finished braid shall match the standard sample for shade and appearance and shall be equal to or better than the standard sample with respect to all characteristics for which the standard sample is referenced (see 6.4).

3.3 Materials. It is encouraged that recycled material be used when practical as long as it meets the requirements of this specification.

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

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

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3.3.3 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

3.4 Color. The color of the finished braid shall be as specified (see 6.2), except that the type III, class 2 and type IV, class 1, color 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 as specified in 4.4.3. When no standard sample is available, the finished braid shall show no more than a trace of labile sulfur.

3.4.1 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". 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. Testing shall be as specified in 4.4.3.

3.4.2 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.

3.5 Construction and physical requirements. The braid shall conform to the requirements specified in table I. The type I braid shall be constructed with a cotton warp with a mohair outer covering. The type II braid shall be constructed with a cotton warp 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.

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TABLE I. Braid requirements

Type Class	Width inches (min.)	Oz/per 144 yards (min.)	Lines	Number of carriers	Ends per carrier	Total warp ends cotton	Picks per inch (min.)	Breaking force pounds (min.)	Braiding type	
I	1	3/4	45	8	49	2	16 spools of 3 ends per spool	26	110	3/3 Hercules
I	1	1	62	12	73	2	24 spools of 3 ends per spool	26	170	3/3 Hercules
I	1	1-3/4	100	22	133	2	44 spools of 2 ends per spool	26	220	3/3 Hercules
I	1	2	110	24	145	2	48 spools of 2 ends per spool	24	300	3/3 Hercules
I	1	2-1/2	166	24	145	3	48 spools of 3 ends per spool	19	360	3/3 Hercules
I	3	1 1/2 2/	24	6	25	2	12 spools of 2 ends of 20/2 or 4 ends of 40/2 per spool	21	50	2/2 plain
I	3	3/4 2/	34	8	33	2	16 spools of 2 ends of 20/2 or 4 ends of 40/2 per spool	21	65	2/2 plain
I	3	1 2/	58	12	49	2	24 spools of 2 ends of 20/2 or 4 ends of 40/2 per spool	19	95	2/2 plain

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TABLE I. Braid requirements (cont'd)

Type Class	Width inches (min.)	Oz/per 144 yards (min.)	Lines	Number of carriers	Ends		Total warp ends cotton	Picks per inch (min.)	Breaking force pounds (min.)	Braiding type
					per carrier	l/				
I	3	1-1/2 2/	68	16	65	2	32 spools of 2 ends of 20/2 or 4 ends of 40/2 per spool	21	130	2/2 plain
I	3	1-3/4 2/	90	16	65	2	32 spools of 4 ends per spool	18	170	2/2 plain
II	1	1/4	12	3	13	2	6 spools of 6 ends per spool	23	40	2/2 plain
II	1	1/2	25	6	25	2	12 spools of 6 ends per spool	22	80	2/2 plain
II	1	1-1/2	68	16	65	2	32 spools of 6 ends per spool	22	210	2/2 plain
II	1	2	85	20	81	2	40 spools of 6 ends per spool	22	265	2/2 plain
III	1	1-3/4 2/	-	-	64 3/	8	23 spools of 6 ends per spool	10	-	braid 2, skip 2 (skipweave)

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TABLE I. Braid requirements (cont'd)

Type Class	Width inches	Oz/per 144 yards (min.)	Lines	Number of car- riers	Ends per car- rier 1/	Total warp ends cotton	Picks per inch (min.)	Breaking force pounds (min.)	Braiding type
III 2	1/2	25	6	25	3	12 spools of 4 ends per spool	20	60	2/2 plain
III 2	3/4	40	10	41	3	20 spools of 4 ends per spool	20	115	2/2 plain
III 2	1	48	12	49	3	24 spools of 4 ends per spool	20	150	2/2 plain
III 2	1-1/2	72	16	65	3	32 spools of 4 ends per spool	21	160	2/2 plain
III 2	2-1/4	100	20	81	4	40 spools of 4 ends per spool	17	200	2/2 plain
IV 1	1-1/2	72	16	65	2 4/	32 spools of 3 ends per spool (20/2 combed mercerized cotton)	21	-	2/2 plain

1/ Type I - Ends per carrier as listed are all 2/28s mohair yarn.

Type II - 1 end of 2/28s mohair yarn.

- 1 end of 210 denier nylon (not twisted).

2/ This is a required width with  $\pm$  1/16 inch tolerance

3/ Carriers braiding in pairs.

4/ 1 end of 210/1/34 nylon.

1 end of 20/2 combed mercerized cotton.

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3.6 Finish. 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.

3.6.1 Shrinkage. The Type I, class 3 and type III, class 2 braids shall shrink not more than 2.0 percent in length when tested as specified in 4.4.3. The width of the braid, after being subjected to the shrinkage test, shall measure not less than the minimum width specified in 3.5.

3.7 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 be not 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.

### 3.8 Identification.

3.8.1 Label. 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

3.9 Workmanship. The finished braid shall conform to the quality of product established by this specification. The occurrence of defects shall not exceed the applicable acceptable quality levels.

## 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 (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase 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 this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not



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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. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.1.2 Responsibility for dimensional requirements. Unless otherwise specified in the contract or purchase order, the contractor is responsible for ensuring that all specified dimensions have been met. When dimensions cannot be examined on the end item, inspection shall be made at any point, or at all points in the manufacturing process necessary to assure compliance with all dimensional requirements.

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

4.2 Classification of inspections. The inspection requirements specified herein are classified as follows:

- a. First article inspection (see 4.3).
- b. Quality conformance inspection (see 4.4).

4.3 First article inspection. When a first article is required (see 3.1 and 6.2), it shall be examined for the defects specified in 4.4.2 and shall be tested for the characteristics specified in 4.4.3.

4.4 Quality conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

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

4.4.1.1 Component and material certification. A certificate of compliance may be acceptable as evidence that the characteristics listed below conform to the specified requirements.

<u>Component</u>	<u>Requirement paragraph</u>
Mohair yarn	3.3.1
Nylon yarn	3.3.2
Cotton yarn	3.3.3

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4.4.2 End item examination.

4.4.2.1 Yard-by-yard examination. The braid shall be examined at normal inspection distance (3 feet) for the defects listed in table II. All defects found shall be counted regardless of their proximity to each other, except where two or more defects represent a single local condition, in which case only the more serious defect shall be counted. A continuous defect shall be counted as one defect for each warpwise yard or fraction thereof in which it occurs. The lot size shall be expressed in yards. The sample unit shall be 1 yard of braid. The inspection level shall be II and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 1.0 for major defects and 4.0 for total (major and minor combined) defects. The number of reels or spools from which the sample is to be selected shall be in accordance with table III. The sample yardage shall be apportioned equally among the selected reels or spools.

TABLE II. Yard-by-yard examination defects

Defect	Classification	
	Major	Minor
Missing or broken yarn	101	
Hole, cut, or tear	102	
Knot		201
Abrasion mark		202
Coarse or fine yarn		203
Slub		204
Spot or stain		205
Braiding loose or tight		206
Wavy outer edges (warp direction)	103	
Width <u>1/</u> :		
1/4 to 1/2 inch:		
Up to and including 1/16 inch less than minimum specified		207
More than 1/16 inch less than minimum specified	104	
3/4 inch up to and including 2 inches, (except type III, class 1, 1-3/4 inch):		
Up to and including 1/8 inch less than minimum specified		208
More than 1/8 inch less than minimum specified	105	

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TABLE II. Yard-by-yard examination defects (cont'd)

Defect	Classification	
	Major	Minor
Width <u>1</u> / <sub>2</sub> : (cont'd)		
Type III, class 1, 1-3/4 inch:		
Exceeding tolerance limits	106	
2-1/2 inches:		
Up to and including 3/16 inch less than minimum specified		209
More than 3/16 inch less than minimum specified	107	

1/ A scale graduated in 1/32 of an inch shall be used. The average of five readings shall constitute one determination.

4.4.2.2 Overall examination. The braid shall be examined for defects listed below. The sample shall consist of the applicable number of reels or spools indicated in table III. The lot shall be rejected if the total number of defects in the sample exceeds the acceptance number specified in table III.

Defects

Not clean throughout  
 Objectionable odor  
 Identification marking missing, illegible, or incorrect  
 Improperly or insecurely wound on spools, tangled and does not unwind properly  
 Not singed

TABLE III. Sample size and acceptance criteria

Lot size (yards)	Sample size	
	in reels or spools	Acceptance number <u>2</u> /
Up to 1,300 inclusive <u>1</u> / <sub>2</sub>	3	0
1,301 up to and including 3,200	5	0
3,201 up to and including 8,000	7	0
8,001 up to and including 22,000	10	0
22,001 up to and including 110,000	15	1
110,001 or over	25	1

1/ If a lot contains fewer than three reels or spools, each reel or spool in the lot shall be examined.

2/ Applicable only to overall examination (see 4.4.2.2).

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4.4.2.3 Length examination. The braid shall be examined for defects listed below. The sample shall consist of the applicable number of reels or spools indicated in table III. The presence of any defect shall be cause for rejection of the lot.

Defects

Any total length on a reel or spool is more than the maximum specified or less than the minimum specified

Any total length on a reel or spool is more than 2 yards less than the total length marked on the reel or spool ticket

Any spool containing more than four individual pieces (lengths)

Any reel containing more than three individual pieces (lengths)

Any individual length less than 5 yards

Total length of all lengths in the sample is less than the total of the lengths marked on the reel or spool tickets

4.4.2.4 Shade and appearance examination. The braid shall be examined for defects listed below. The sample unit shall consist of the applicable number of reels or spools indicated in table III. The presence of any defect shall be cause for rejection of the lot.

Defects

Shaded end to end

Does not match standard sample for shade and appearance

Mottled or uneven color

4.4.3 End item testing. The end items shall be tested for the characteristics listed in table IV. The methods of testing specified in FED-STD-191 wherever applicable, and as listed in table IV shall be followed. The physical and chemical values specified in section 3 apply to the average of the determinations made on a sample unit for test purposes as specified in the applicable test methods except for the weight characteristic, for which the lot average of all sample units shall apply. All test reports shall contain the individual values used in expressing the final result. The sample unit shall be 6 yards of the braid. The lot shall be unacceptable if one or more sample units 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

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TABLE IV. End item tests

Characteristic	Requirement paragraph	Test method
Yarn ply	3.3	Visual
Labile sulfur	3.4	2020 <u>1/</u>
Colorfastness to:		
Perspiration	3.4.1	5680
Wet drycleaning	3.4.1	5622
Crocking	3.4.1	5651
Light	3.4.1	5660
Weight (conditioned)	3.5	4.4.3.1
Lines	3.5	Visual <u>2/</u>
Number of carriers	3.5	Visual <u>2/</u>
Ends per carrier	3.5	Visual <u>2/</u>
Total warp ends	3.5	Visual <u>2/</u>
Picks per inch	3.5	Visual <u>3/</u>
Breaking strength	3.5	5100 <u>4/</u>
Braiding type	3.5	Visual <u>5/</u>
Shrinkage, length	3.6.1	5558 <u>6/</u>
Shrinkage, width	3.6.1	5558 <u>6/</u>

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

4.4.3.1 Weight. Two specimens in excess of 1 yard each shall be selected from each sample unit. The specimens of braid in the relaxed state shall then be measured and cut to exactly 1 yard each. While in a standard condition as defined in section 4 of FED-STD-191, each specimen shall be weighed on a balance or scale accurate to 0.01 ounce. The weight of all specimens in ounces shall be averaged and this average value multiplied by 144 to determine ounces per gross yards. The results shall be reported to the nearest 0.5 ounces per 144 yards.

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4.4.4 Packaging examination. The fully packaged end items shall be examined for the defects listed below. The lot size shall be expressed in units of shipping containers. The sample unit shall be one shipping container fully packaged. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

<u>Examine</u>	<u>Defect</u>
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application
Materials	Any component missing, damaged, or not as specified
Workmanship	Inadequate application of components, such as: incomplete sealing or closure of flap, improper taping, loose strapping or inadequate stapling Bulged or distorted container
Weight	Weight of contents of each container exceeds specified requirements

4.4.5 Palletization examination. The fully packaged and palletized end items shall be examined for the defects listed below. The lot size shall be expressed in terms of palletized unit loads. The sample unit shall be one palletized unit load fully packaged. The inspection level shall be S-1 and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

<u>Examine</u>	<u>Defect</u>
Finished dimensions	Length, width, or height exceeds specified maximum requirements
Palletization	Pallet pattern not as specified Interlocking of loads not as specified Load not bonded as specified
Weight	Exceeds maximum load limits
Marking	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application

## 5. PACKAGING

5.1 Preservation. Preservation shall be level A or Commercial as specified (see 6.2).

5.1.1 Level A preservation. 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.

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5.1.2 Commercial preservation. The braid shall be preserved in accordance with ASTM D 3951.

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

5.2.1 Level A packing. Spools or reels of braid of one type, class, width, and color only, preserved as specified in 5.1, shall be compactly packed in a snug-fitting fiberboard shipping container conforming to style RSC-L, grade V2s of PPP-B-636. The inside of each container shall be fitted with a box liner conforming to type CF, class weather-resistant, variety DW, grade V15c of PPP-B-636. Each shipping container shall be closed in accordance with method III, waterproofed in accordance with method V, and reinforced in accordance with the appendix of PPP-B-636 except that the inspection shall be in accordance with 4.4.4. The weight of contents of each shipping container shall not exceed 65 pounds. Shipping containers shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified (see 6.2). Strapping shall be limited to nonmetallic strapping, except for type II, class F loads.

5.2.2 Level B packing. Spools or reels of braid of one type, class, width and color only, preserved as specified in 5.1, 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 of PPP-B-636. The inside of each fiberboard container shall be fitted with a box liner conforming to type CF, class domestic, variety DW, grade 275 of PPP-B-636. Each shipping container shall be closed in accordance with method II as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.4. The weight of contents of each shipping container shall not exceed 65 pounds.

5.2.2.1 Weather-resistant fiberboard container. When specified (see 6.2), the shipping container shall be a grade V3c, V3s or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with method III as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.4.

5.2.3 Commercial packing. Braid, preserved as specified in 5.1, shall be packed in accordance with ASTM D 3951.

5.3 Palletization. When specified (see 6.2), braid, packed as specified in 5.2.2 or 5.2.3, shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Pallet type shall be type I (4-way entry), type IV, or type V in accordance with MIL-STD-147. Pallets shall be fabricated from wood groups I, II, III, or IV of MIL-STD-731. Each prepared load shall be bonded with primary and secondary straps in accordance with the bonding means C and D or film bonding means F or G. Pallet patterns shall be in accordance with the appendix of MIL-STD-147. If the container is of a size which does not conform to any of the patterns specified in MIL-STD-147, the pallet pattern used shall first be approved by the contracting officer.

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5.4 Marking. In addition to any special marking required by the contract or purchase order, unit packs, shipping containers, and palletized unit loads shall be marked in accordance with MIL-STD-129 or ASTM D 3951, as applicable.

## 6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. 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
Cap braid, skipweave	1-3/4 inch
USMA uniform	1 inch and 2 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
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6.2 Ordering data. Acquisition documents must specify the following:

- a. Title, number, and date of this specification.
- b. Type, class, and width required (see 1.2).
- c. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
- d. When first article is required (see 3.1, 4.3, and 6.3).
- e. Color required (see 3.4).
- f. Levels of preservation and packing (see 5.1 and 5.2).
- g. Type and class of unit load required (see 5.2.1).
- h. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).
- i. When palletization is required (see 5.3).



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6.3 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of FAR 52.209. The first article should be a preproduction sample. The contracting officer should specify the appropriate type of first article and the number of units to be furnished. The contracting officer should also include specific instructions in acquisition documents regarding arrangements for selection, inspection, and approval of the first article.

6.4 Samples. For access to samples, address the contracting activity issuing the invitation for bids (see 3.2).

6.5 Subject term (key word) listing.

Cap  
Ornamentation  
Uniform

6.6 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:

Army - GL  
Navy - NU  
Air Force - 11

Preparing activity:

Army - GL  
(Project 8315-0353)

Review activities:

Army - MD  
Air Force - 82, 99  
DLA - CT

User activities:

Navy - MC  
Air Force 45

# 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.

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### I RECOMMEND A CHANGE:

#### 1. DOCUMENT NUMBER

MIL-B-593H

#### 2. DOCUMENT DATE (YYMMDD)

1990 September 18

#### 3. DOCUMENT TITLE

BRAID, TEXTILE (FLAT)

#### 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

U.S. Army Natick RD&amp;E Center

##### b. TELEPHONE (Include Area Code)

(1) Commercial

508-651-5221

(2) AUTOVON

256-5221

##### c. ADDRESS (Include Zip Code)

Commander, U.S. Army Natick RD&amp;E Center

ATTN: STRNC-ES

Natick, MA 01760-5014

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