

INCH-POUND

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SUPERSEDING  
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## MILITARY SPECIFICATION

### TAPE, TEXTILE AND WEBBING, TEXTILE, REINFORCING, NYLON

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

#### 1. SCOPE

1.1 Scope This specification covers nylon reinforcing tape and webbing.

1.2 Classification. The tape and webbing shall be of the following types and classes as specified in table I and II in the widths required (see 6.2).

Type II	Tape - herringbone twill weave
Type III	- Tape - Plain weave
Type IV	- Webbing - Double plain weave
Type V	- Tape - Herringbone twill weave
Type VI	- Tape - Herringbone twill weave
Class 1	- Critical use (shuttle loom, nylon 6,6)
Class 1A	- Critical use (shuttleless loom, nylon 6,6)
Class 2	- Non-critical use (shuttle or shuttleless loom, nylon 6 or nylon 6,6)

Beneficial comments (recommendations, additions, deletion) 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 8305/8315

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1.2.1 Class reference. When procurement documents referencing this specification do not specify the class of tape or webbing, the requirements for classes I or IA (critical use) tape or webbing shall apply with the exception of type III. Unless otherwise specified, the type III webbing shall be furnished in a shuttleless or shuttle construction.

1.3 Part or identifying number (PIN). A document based PIN to identify types and classes of tape and webbing is included in section 6 (see 6.5).

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 issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

MILITARY

MIL-P-43334 - Packing of Textile Webbing and Tape

STANDARDS

FEDERAL

FED-STD-191 - Textile Test Methods

MILITARY

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

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

2.1.2 Other Government documents, drawings, and publications. The following other government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation

## FEDERAL TRADE COMMISSION

## Rules and Regulations Under the Textile Fiber Products Identification Act

(Copies are available from the Federal Trade Commission, Correspondance Branch, Washington, DC 20580-0001.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the 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. The dyed tape and webbing 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 (see 6.4).

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

3.3.1 Yarn. The nylon yarn used in the manufacture of the tape and webbing shall be a bright, high tenacity, light and heat resistant polyamide. For class 1 and 1A tape and webbing, nylon 6,6 shall be used. For class 2 tapes and webbings, nylon 6 or nylon 6,6 shall be used. The yarn shall not be bleached.

3.3.2 Denier. The nominal denier of the warp, filling, and binder yarns, prior to dyeing, shall be as specified in 3.5. The catch cord for shuttleless loom tapes or webbings shall be 30 to 210 denier nylon or 70, 90, or 150 denier polyester. The catch cord for class 2 shall be color sealed black and for class 1A shall match the color of the tape or webbing.

3.4 Color. Unless otherwise specified by the procuring activity, the color for types II, III, IV and V shall be natural. The color of type VI shall be as specified (see 6.2). The tape or webbing shall not be bleached.

3.4.1 Dyeing. When a color is specified, the tape or webbing shall be yarn or piece dyed.

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

3.4.3 Colorfastness. The dyed tape or webbing shall show fastness to laundering and light equal to or better than the standard sample or equal to or better than a rating of "good" when tested as specified in 4.4.3.

3.5 Physical requirements. The finished tape and webbing shall conform to the requirements specified in tables I and II when tested as specified in 4.4.3.

TABLE I. Physical requirements class 1

Type	Width Inches	Thickness Inch	Weight ounces per lin. yard Maximum	Breaking strength Pounds Minimum <u>1/</u>	Elongation Percent Minimum <u>2/</u>	Yarns (minimum)			Yarn denier		
						Total Warp	Binder	Per inch Filling	Warp	Binder	Filling
II	1 + 1/32	.025 - .035	0.40	900	18	96	-	40	840	-	210
II	1-1/2 + 1/32	.025 - .035	0.60	1300	18	144	-	40	840	-	210
II	2 + 1/32	.025 - .035	0.80	1700	18	192	-	40	840	-	210
III	3/8 + 1/32	.015 - .025	0.12	200	18	74	-	33	210	-	420
III	1/2 + 1/32	.015 - .025	0.15	250	18	100	-	33	210	-	420
III	3/4 + 1/32	.015 - .025	0.20	400	18	150	-	33	210	-	420
III	1 + 1/32	.015 - .025	0.30	525	18	200	-	33	210	-	420
III	1-1/2 + 1/32	.015 - .025	0.40	850	18	300	-	33	210	-	420
IV	1/2 + 1/32, -1/16	.030 - .040	0.35	550	18	99	8	48	420	420	420
IV	5/8 + 1/32, -1/16	.030 - .040	0.40	625	18	123	10	48	420	420	420
IV	1 + 1/32, -1/16	.030 - .040	0.50	1000	18	197	16	48	420	420	420
IV	1-1/3 + 1/32, -1/16	.030 - .040	0.60	1100	18	221	18	48	420	420	420
IV	1-1/2 + 1/32, -1/16	.030 - .040	0.75	1500	18	293	24	48	420	420	420
V	9/16 + 1/32	.020 - .030	0.20	500	18	42	-	32	840	-	420
VI	3/4 + 1/32	.020 - .030	0.20	425	18	150	-	38	210	-	420

1/ No individual determination shall fall below the minimum specified.

2/ Minimum elongation measured at 90 percent or more of the minimum rated breaking strength requirement.

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TABLE II. Physical requirements classes 1A and 2

Type	Width Inches	Thickness Inch	Weight ounces per lin. yard Maximum	Breaking strength Pounds Minimum <u>1/</u>	Elongation Percent Minimum <u>2/</u>	Yarns (minimum)			Yarn denier <u>4/</u>		
						Total Warp	Binder	Per inch Filling <u>3/</u>	Warp	Binder	Filling
II	1 + 1/32	.025 - .035	0.40	900	18	96	-	80	840	-	100
II	1-1/2 + 1/32	.025 - .035	0.60	1300	18	144	-	80	840	-	100
II	2 + 1/32	.025 - .035	0.80	1700	18	192	-	80	840	-	100
III	3/8 + 1/32	.015 - .025	0.12	200	18	74	-	66	210	-	210
III	1/2 + 1/32	.015 - .025	0.15	250	18	100	-	66	210	-	210
III	3/4 + 1/32	.015 - .025	0.20	400	18	150	-	66	210	-	210
III	1 + 1/32	.015 - .025	0.30	525	18	200	-	66	210	-	210
III	1-1/2 + 1/32	.015 - .025	0.40	850	18	300	-	66	210	-	210
IV	1/2 + 1/32, -1/16	.030 - .040	0.35	550	18	99	8	96	420	420	210
IV	5/8 + 1/32, -1/16	.030 - .040	0.40	625	18	123	10	96	420	420	210
IV	1 + 1/32, -1/16	.030 - .040	0.50	1000	18	197	16	96	420	420	210
IV	1-1/8 + 1/32, -1/16	.030 - .040	0.60	1100	18	221	18	96	420	420	210
IV	1-1/2 + 1/32, -1/16	.030 - .040	0.75	1500	18	293	24	96	420	420	210
V	9/16 + 1/32	.020 - .030	0.20	500	18	42	-	64	840	-	210
VI	3/4 + 1/32	.020 - .030	0.20	425	18	150	-	76	210	-	210

1/ No individual determination shall fall below the minimum specified.

2/ Minimum elongation measured at 90 percent or more of the minimum rated breaking strength requirement.

3/ Two picks per shed.

4/ Nylon 6, or 6,6 is allowed for class 2 only.

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3.5.1 Resistance to light and heat. The nylon tape and webbing shall not lose more than 25 percent of the original breaking strength upon exposure to light and heat when tested as specified in 4.4.3.

3.5.2 Curvature. Classes 1 and 2 tapes and webbings shall show no more lateral curvature than 1/4 inch within a yard when tested as specified in 4.4.3.

3.6 Weave. The weave of tape and webbing shall be as specified in 3.6.1 through 3.6.5. The filling yarn for class 1 shall traverse the full width of the tape or webbing with one filling yarn per shed. The filling yarn of all types of classes 1A and 2 shall traverse the full width of tape or webbing and shall be held at the edge by a catch cord yarn interlacing with the filling yarn in a method depicted in figure 1.

3.6.1 Type II. The weave for type II tape shall be a 2-up and 2-down herringbone twill with three reversals of the twill across the width of the tape.

3.6.2 Type III. The weave for type III tape shall be a plain weave, 1-up and 1-down.

3.6.3 Type IV. The weave for type IV webbing shall be composed of two ground warps (face and back), one binder warp, and one filling. The face warp shall weave plain with the picks that show on the face, and the back warp shall weave plain with the picks that show on the back. The binder warp shall weave plain throughout.

3.6.4 Type V. The weave for type V tape shall be a 2-up and 2-down herringbone twill with one reversal of twill at the center.

3.6.5 Type VI. The weave for type VI tape shall be a 2-up and 2-down herringbone twill with one reversal of twill at the center and 2 ends woven as 1.

3.7 pH. The pH value of the water extract of the finished tape or webbing shall be not less than 5.0 nor more than 8.5 when tested as specified in 4.4.3.

3.8 Length and put-up. Unless otherwise specified (see 6.2), tape or webbing 9/16 inch or less in width shall be furnished on double headed spools, or tubes, containing  $500 \pm 10$  yards. Tape or webbing 5/8 inch and wider shall be furnished in rolls of  $72 \pm 1$  yards. No roll shall contain more than two pieces and no spool or tube shall contain more than 10 pieces. The minimum length of each piece for all tape and webbing widths shall be 5 yards.

3.9 Identification ticket or label. Each roll, tube or spool shall have an identification ticket or label attached in accordance with MIL-P-43334.

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3.10 Fiber identification. Each roll, spool or tube of tape or webbing shall be labeled or ticketed for fiber content in accordance with the Textile Fiber Products Identification Act.

3.11 Workmanship. The finished tape or webbing shall conform to the quality of product established by this specification and 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 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 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 4.4.2.1 through 4.4.2.3 and 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

4.4.2 End item examination.

4.4.2.1 Yard-by-yard examination. The required yardage from each roll, tube, or spool shall be inspected on both sides for the visual defects listed in table III. All defects found shall be counted regardless of their proximity one to another, except where two or more defects represent a single local condition of the tape or webbing, 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 sample unit shall be one yard. The inspection level shall be III and the acceptable quality level shall be 0.40 major and 6.5 total (major and minor combined) defects per hundred units (yards). The lot size shall be expressed in units of 1 yard. An approximate equal number of yards shall be examined from each roll, tube, or spool selected. The number of rolls, tubes, or spools from which the sample is to be selected shall be in accordance with table IV.

TABLE III. End item visual defects

Examine	Defect	Classification	
		Major	Minor
Abrasion mark	Resulting in rupture of yarns or in nap sufficient to obscure the identity of any yarns exceeding 10 percent of width or 1 inch in length	101	
Yarns (filling)	Two yarns per shed (except where permitted)	102	
Broken or missing end	Two or more regardless of length or a single end exceeding 6 inches in length	103	
	Single end, 1/4 inch up to and including 6 inches		201
Broken or missing pick	Two or more regardless of length	104	
Coarse or light filling bar	Resulting in noticeable difference in stiffness or thickness of tape or webbing and extending for more than 1/4 inch in the length direction	105	

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TABLE III End item visual defects (cont'd)

Examine	Defect	Classification	
		Major	Minor
Coarse or light filling bar (cont'd)	Resulting in noticeable difference in stiffness or thickness of tape or webbing and extending for 1/4 inch or less in the length direction		202
Twist or distortion	Will not lay flat upon application of manual pressure		203
Cut, hole, or tear	Any	106	
Edges	Frayed, slack, tight, or otherwise poorly constructed and exceeding 1/4 inch in length	107	
Scalloped edges	Indentation of 1/8 inch or more regardless of length	108	
Floats or skips	Multiple, 1/2 inch or more warp and filling directions	109	
	Single float or skip, over 1 inch	110	
	Multiple, less than 1/2 inch in combined warp and filling directions		204
	Single float or skip over 1/2 inch but not exceeding 1 inch if in the warp		205
	Single float or skip over 1/4 inch but not exceeding 1 inch if in the filling		206
Hitchback crack	Opening between adjoining picks, or warpwise tension area over part of the width resulting in light and heavy places $\frac{1}{2}$		207
Jecked in filling, slough-off, slug	More than twice the thickness of the normal yarn $\frac{1}{2}$		208

TABLE III. End item visual defects (cont'd)

Examine	Defect	Classification	
		Major	Minor
Kinks	More than three kinks in any 9 linear inches	111	
Knots	More than two knots in any 9 linear inches	112	
	Single knot with untrimmed ends extending more than 1/16 inch from surface of tape or webbing		209
Mispick, double pick	Two or more across the full width	113	
	Single across the full width		210
Slack end	Two or more in the same area, jerked in between picks, or forming clearly visible loops on the surface of tape or webbing <u>1/</u>	114	
	Single jerked in between picks or forming clearly visible loops on surface of tape or webbing <u>1/</u>		211
Slub or slug, gout	More than twice the thickness of the normal yarn		212
Smash	Any	115	
Spot, stain, or streak	Any <u>1/</u>		213
Tight end	Any <u>1/</u>		214
Wrong draw	Extending for more than 9 inches	116	
Shaft mark	Yarn slippage resulting in open place or clearly visible heavy and light yarn density <u>1/</u>		215
Width	Beyond specified tolerances		216

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TABLE III. End item visual defects (cont'd)

Examine	Defect	Classification	
		Major	Minor
Uneven width	Tight or loose filling resulting in variations of $\pm 1/16$ inch in width	117	
Applicable to shuttleless loom tape	Catch cord missing	118	
	Twisted or wavy, will not lay flat upon application of manual pressure <u>2/</u>	119	

1/ Clearly visible at normal inspection distance (approximately 3 feet).

2/ A 3-yard length of tape shall be laid on a flat and smooth surface without tension. If the tape does not lie flat, or if the tape is wavy or ridgy, it shall be counted as a defect.

TABLE IV. Sample size and acceptance criteria

Lot size in yards	<u>Sample size</u>		Maximum number of defects acceptable in sample (applicable to 4.4.2.2 and 4.4.2.3 only)
	Roll	Tube or spool	
Up to 1200 <u>1/</u>	3	2	0
1201 up to and including 3200	5	3	0
3201 up to and including 10,000	8	5	0
10,001 up to and including 35,000	13	8	0
35,001 up to and including 150,000	20	13	1
150,001 and over	32	20	2

1/ If a lot contains fewer than three rolls, tubes, or spools; each roll, tube, or spool in the lot shall be examined.

4.4.2.2 Overall examination. Each defect listed below shall be counted no more than once in each roll, tube, or spool examined. The sample size and acceptance number shall be as shown in table IV.

Defect

- Objectionable odor
- Unclean throughout
- Uneven weaving throughout
- Off shade, i.e. not within established tolerance
- Not labeled or ticketed for fiber content in accordance with Textile Fiber Products Identification Act

4.4.2.3 Length examination.

4 4 2 3 1 Individual roll, tube, or spool Each roll, tube, or spool in the sample shall be examined for the defects listed below. The sample size and acceptance number shall be as shown in table IV.

Defect

- Gross length less than specified minimum length or more than specified maximum length
- Gross length marked on piece ticket in excess of actual gross length by 2 or more yards
- Any spool or tube containing more than ten pieces
- Any roll containing more than two pieces
- Any piece less than 5 yards in length
- Holder not as specified

4.4.2.3.2 Total yardage in sample. The lot shall be unacceptable if the total of the actual gross length of rolls, tubes, or spools in the sample is less than the total of the gross lengths marked on roll, tube, or spool tickets.

4.4.3 End item testing. The tape or webbing shall be tested for the characteristics listed in table V. The methods of testing specified in FED-STD-191 wherever applicable and as listed in table V shall be followed. Except for breaking strength and elongation, the physical and chemical values specified in section 3 apply to the results of the determinations made on a sample unit for test purposes as specified in the applicable test methods. Breaking strength and elongation values apply to the individual determinations. All test reports shall contain the individual values utilized in expressing the final result. The sample size shall be as follows:

<u>Lot size (yards)</u>	<u>Sample size (no. 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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The lot shall be unacceptable if one or more units fail to meet any requirement specified. The sample unit for testing shall be as follows:

Type II, 1-1/2 inches and 2 inches - 30 yards  
 Type IV, 1-1/2 inches - 30 yards  
 All others - 15 yards

TABLE V. End item tests

Characteristic	Requirement paragraph	Test method	Number of determinations per sample unit	Results reported as
Nylon yarn	3 3.1	<u>1/</u>	-	-
Colorfastness to laundrying	3.4.3	5614 <u>2/</u>	-	-
light	3.4.3	5660	-	-
Denier	3.5	4021 <u>1/</u>	-	-
Thickness	3.5	5030	-	-
Weight	3.5	5041	5	Average of 5 determinations to nearest 0.01 oz.
Warp ends:				
Face and back warp	3.5	5050	1	Actual count
Binder warp (type IV)	3.5	5050	1	Actual count
Filling.				
Picks per inch	3.5	5050	1	Actual count
Breaking strength:				
Original	3.5	4108	5	Individual results for each specimen tested
After light test	3.5.1	4.5.1 and 4108	5	Individual results for each specimen tested
After heat test	3.5.1	4.5.2 and 4108	-	Individual results for each specimen tested
Elongation	3.5	4108 <u>3/</u>	5	Individual results for each specimen tested
Curvature	3.5.2	4.5.3	-	Individual results for each specimen tested

TABLE V. End item tests (cont'd)

Characteristic	Requirement paragraph	Test method	Number of determinations per sample unit	Results reported as
Weave	3.6	Visual	1	Pass or fail
pH	3.7	2811	1	Pass or fail

- 1/ A certificate of compliance shall be submitted and will be acceptable for the stated requirements.
- 2/ Only the stain on the nylon fibers of the color transfer cloth shall be evaluated.
- 3/ The pretension load (pounds) shall be equivalent to 1 percent of the minimum rated specification breaking strength requirements.

4.4.4 Packaging inspection. The sampling and inspection of the preservation, packaging, and container marking shall be in accordance with the requirements of MJI-P-43334.

#### 4.5 Methods of inspection.

4.5.1 Resistance to light. Five tests shall be conducted on each sample unit of the tape or webbing. The test specimens shall be exposed in the accelerated weathering unit as specified in Method 5804 of FED-STD-191. The unbacked specimen shall be placed in a stainless steel holder or suspended from the rack. Corex D filters and sunshine carbons shall be used. The exposure time shall be 50 hours. The spray heads shall be shut off during the entire exposure period. The relative humidity conditions shall be  $55 \pm 5$  percent throughout the test cycle. At the end of the exposure period, the specimens shall be brought to equilibrium under standard conditions as defined in FED-STD-191. The specimens shall then be tested for breaking strength as specified in table V and the percent of breaking strength (B.S.) loss shall be calculated as follows:

$$\frac{\text{Original average B.S.} - \text{Average B.S. after aging}}{\text{Original average B.S.}} \times 100 = \text{Percent of B.S. loss}$$

4.5.2 Resistance to heat. Five tests shall be conducted on each sample unit of the tape or webbing. The test specimens shall be suspended in a circulating air oven at a temperature of  $180^{\circ}\text{C} \pm 3^{\circ}\text{C}$  ( $356^{\circ}\text{F} \pm 5^{\circ}\text{F}$ ) for 1 hour. After removal from the oven, the specimen shall be brought to equilibrium under standard conditions as defined in FED-STD-191. The specimens shall then be tested for breaking strength as specified in table V and the percent of breaking strength loss shall be calculated as follows:

$$\frac{\text{Original average B.S.} - \text{Average B.S. after aging}}{\text{Original average B.S.}} \times 100 = \text{Percent of B.S. loss}$$

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4.5.3 Measurement of curvature.

4.5.3.1 Test specimen The test specimen shall be a length of tape or webbing, full width, measuring a minimum of 40 inches. The specimen shall not be stretched, smoothed, or otherwise changed from its original condition prior to testing.

4.5.3.2 Number of determinations. Five specimens shall be tested from each sample unit.

4.5.3.3 Apparatus.

- Plexiglass or equal - a sheet of polymethyl methacrylate (PMMA) weighing approximately 35 ounces with dimensions of 45 inches by 5 inches by 1/4 inch
- Straight edge - a rigid roller-straight edge measuring 36 inches in length
- a roller 1 inch in diameter, weighing 1-1/2 pounds

4.5.3.4 Procedure. The specimens shall be placed flat on a smooth horizontal flat surface without tension and allowed to reach moisture equilibrium as defined in section 4 of FED-STD-191. After equilibrium is reached, a weight shall be placed at one end of the tape. The roller shall be placed on the specimen at the end of the tape where the weight is located. The specimen shall be approximately in the center of the roller. The roller shall be rolled along the length of the specimen, care being taken to keep the specimen in the center of the roller and not to exert any pressure on the roller. When the roller has passed the length of the tape, the PMMA shall then be placed on the specimen for a period of 1 hour. Without moving the PMMA on the specimen, the straight edge shall be placed on the PMMA so that both ends of the straight edge are aligned perpendicularly with the outermost edge of the specimen. Determine the highest degree of curvature of the outermost edge of the specimen from the straight edge by measuring to the nearest 1/32 of an inch perpendicularly from the straight edge. Record the highest measurement (see figure 3).

4.5.3.5 Report. The result of each determination from each sample unit shall be recorded.

5 PACKAGING

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

5.1.1 Levels A or Commercial preservation. Tape and webbing, put up as specified, shall be preserved in accordance with the applicable requirements of MIL-P-43334.

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



5.2.1 Levels A, B or Commercial packing. Tape and webbing shall be packed in accordance with the applicable requirements of MIL-P-43334.

5.3 Palletization. When required (see 6.2), palletization shall be in accordance with the applicable requirements of MIL-P-43334.

5.4 Marking. In addition to any special markings required by the contract, shipments shall be marked in accordance with MIL-P-43334.

## 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 tape and webbing is intended for binding and reinforcing applications in parachute packs and for equipage.

6.2 Acquisition requirements. Acquisition documents must specify the following:

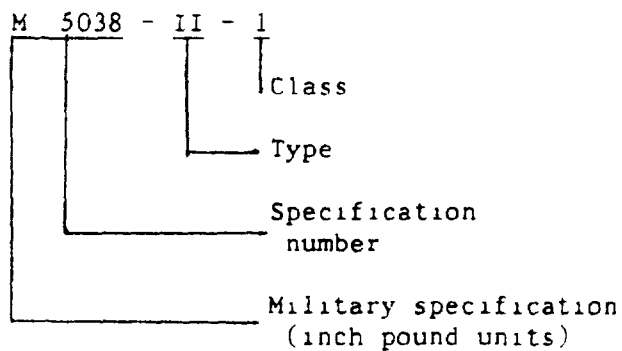
- a. Title, number, and date of this specification.
- b. Type, class and width (see 1.2 and 3.5).
- c. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
- d. When a first article is required (see 3.1, 4.3, and 6.3).
- e. Color required (see 3.4).
- f. When length of roll is other than specified (see 3.8)
- g. Levels of preservation and packing (see 5.1 and 5.2).
- h. When palletization is required (see 5.3).

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 Sample For access to samples, address the contracting activity issuing the invitation for bids or request for proposal.

6.5 Part or identifying Number (PIN) structure The PINs to be used for tape and webbing acquired by this specification are created as follows:

MIL-T-5038H



6 6 Subject term (key word) listing.

Binding and reinforcing  
Equipage  
High tenacity  
Light and heat resistant polyamide  
Parachute packs

6 7 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 - AS  
Air Force - 99

Preparing activity:

Army - GL  
(Project 8305-0327)

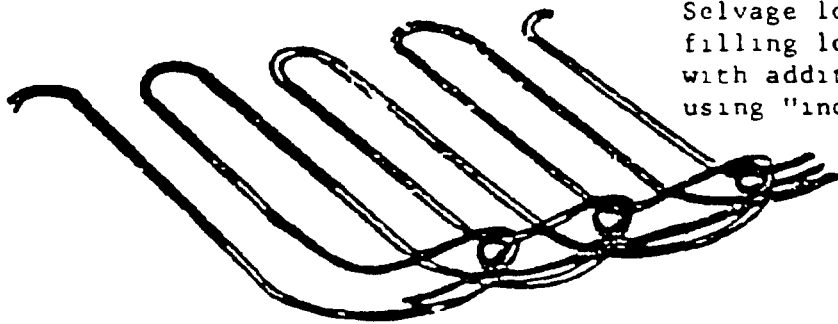
Review activities:

Army - MD  
Air Force - 82  
DLA - CT  
DLA - CS

User activities:

Navy - OS  
Air Force - 45

Figure 1  
Catch-Cord Diagram



Selvage locked by knitting  
filling loops simultaneously  
with additional catch thread  
using "inclined" latch needle.

Figure 2  
Catch-Cord Diagram

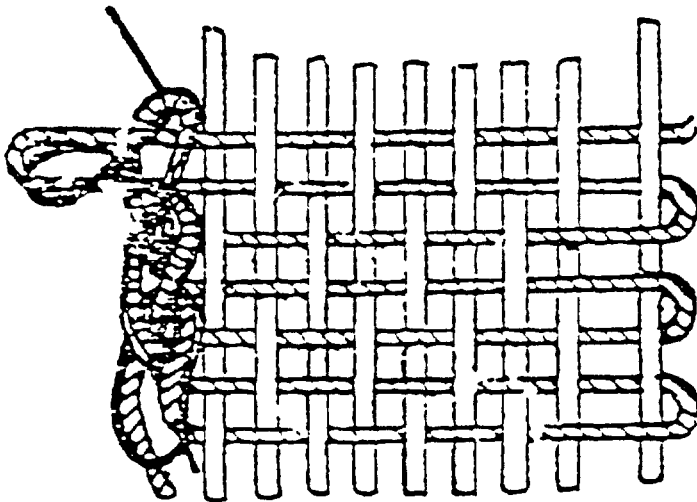
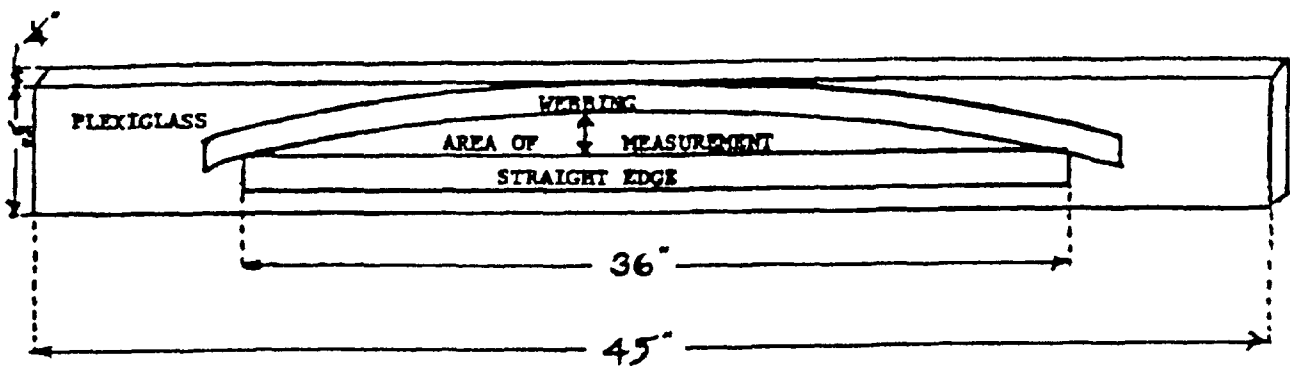


Figure 3  
Diagram Curvature Measurement



# 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.

<b>1. RECOMMEND A CHANGE:</b>	<b>1 DOCUMENT NUMBER</b> MIL-T-5038H	<b>2 DOCUMENT DATE (YYMMDD)</b> 1990 July 17
<b>3 DOCUMENT TITLE</b> TAPE, TEXTILE AND WEBBING, TEXTILE, REINFORCING, NYLON		
<b>4 NATURE OF CHANGE</b> (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)		
<b>5 REASON FOR RECOMMENDATION</b>		
<b>6. SUBMITTER</b>		
<b>a. NAME (Last, First, Middle Initial)</b>	<b>b. ORGANIZATION</b>	
<b>c. ADDRESS (Include Zip Code)</b>	<b>d. TELEPHONE (Include Area Code)</b> (1) Commercial (2) AUTOVON (if applicable)	<b>7. DATE SUBMITTED (YYMMDD)</b>
<b>8 PREPARING ACTIVITY</b>		
<b>a. ME</b> U.S. Army Natick RD&E Center	<b>b. TELEPHONE (Include Area Code)</b> (1) Commercial 508-651-5221 (2) AUTOVON 256-5221	
<b>c. ADDRESS (Include Zip Code)</b> Commander, U.S. Army Natick RD&E Center ATTN: STRNC-ES Natick, MA 01760-5014	<b>IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT</b> Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041 3466 Telephone (703) 756-2340 AUTOVON 289-2340	