

V-L-61J  
October 8, 1987  
SUPERSEDING  
V-L-61H  
June 15, 1984

FEDERAL SPECIFICATION

LACES, NYLON

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

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers nylon laces.

1.2 Classification.

1.2.1 Types and classes. Laces shall be of three types in the following classes as specified (see 6.2):

- Type I - Spun nylon laces
  - Class 1 - 7/32 inch width, flat
  - Class 2 - 10/32 inch width, flat
  - Class 3 - 9/32 inch width, flat
  
- Type II - Bulked filament nylon laces
  - Class 1 - 3/32 inch diameter, round (210 denier yarn)
  - Class 2 - 8/32 inch width, flat
  - Class 3 - 4/32 inch diameter, round
  - Class 4 - 3/32 inch diameter, round (420 denier yarn)
  
- Type III - Multifilament nylon laces
  - Class 1 - 4/32 inch each side, square

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U.S. Army Natick Research, Development, and Engineering Center, Natick, MA 01760-5014, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8335

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## 2. APPLICABLE DOCUMENTS

2.1 Government publications. The following documents, of the issue in effect on the date of invitations for bids or request for proposal, form a part of this specification to the extent specified herein.

Federal Specifications:

A-A-203	- Paper, Kraft, Wrapping
PPP-B-636	- Boxes, Shipping, Fiberboard
PPP-T-45	- Tape, Gummed, Paper, Reinforced and Plain, for Sealing and Securing

Federal Standards:

FED-STD-123	- Marking for Shipment (Civil Agencies)
FED-STD-191	- Textile Test Methods

(Activities outside the Federal Government may obtain copies of Federal specifications, standards, and commercial item descriptions as outlined under General Information in the Index of Federal Specifications, Standards and Commercial Item Descriptions. The Index, which includes cumulative bimonthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.)

(Single copies of this specification and other Federal specifications, standards, and commercial item descriptions required by activities outside the Federal Government for bidding purposes are available without charge from 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.)

(Federal Government activities may obtain copies of Federal standardization documents and the Index of Federal Specifications, Standards and Commercial Item Descriptions from established distribution points in their agencies.)

Military Specification:

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

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

(Copies of military specifications and standards required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following document forms a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of the invitation for bids or request for proposal shall apply.

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.)

(Industry association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies).

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

## 3. REQUIREMENTS

3.1 Standard sample. When a standard sample is established, the cloth 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 6.3).

3.2 First article. When specified in the contract or purchase order, a sample shall be subjected to first article inspection (see 4.3, 6.2, and 6.4).

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### 3.3 Material . (See 6.5.)

3.3.1 Nylon yarn. The nylon yarn for braiding type I, classes 1, 2, and 3 laces shall be spun from nylon staple and twisted into a 2-ply yarn. The nylon yarn for braiding type II, classes 1 and 2 laces, shall be a 210 denier continuous multifilament yarn which has been increased in size to 230-250 denier by air bulking. The cover yarns and warp yarns for braiding type II, class 3 laces shall be made from 840 denier high tenacity continuous multifilament nylon yarn which has been increased to 940-1000 denier by the air bulking process; and the stuffer shall be one end of 10,080 denier high tenacity continuous multifilament nylon yarn, which is not air bulked. The stuffer shall not be braided. The type II, class 4 laces shall be made from 420 denier continuous filament nylon yarn which has been increased in size to 470-490 denier by air bulking. The type III, class 1 laces shall be made from 1050 denier by 3 cabled yarns manufactured from high tenacity, continuous multifilament nylon yarns. Each of the individual yarns used for type III, class 1 laces shall be twisted initially with not less than 7.0 nor more than 9.0 turns per inch (TPI) and the final plied twist shall be in the opposite direction with not less than 13.0 nor more than 15.0 turns per inch.

3.3.2 Nylon or acetate sheet or film. The material for attached lace tips shall be nylon or acetate sheet or film having a thickness of 0.013 to 0.016 inch. The color of the material for the tips shall be black or clear for black laces and clear for all other laces.

3.4 Color. The color of the finished laces shall be as specified (see 6.2) except the stuffer yarn for type II, class 3 laces need not be dyed.

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

3.4.2 Colorfastness. The dyed laces shall show fastness to water equal to or better than the standard sample or equal to or better than the rating of "good" when tested as specified in 4.4.4.

3.5 Braid. The braid for the laces shall be tubular braided without a core except for type II, class 3 which has a stuffer core. All laces shall use a two over and two under braiding except type II, class 2, which shall braid one pair over and one pair under or one end over and one end under and type III, class 1, which shall be square. The braid machine used for type III, class 1 shall be set such as to produce a resultant square braid

exhibiting four separate sides with an equal number of picks per inch and an equal width per side of  $4/32 \pm 1/32$  inch. The braid shall be pressed flat for type I, classes 1, 2, and 3, and for type II, class 2 laces in accordance with commercial practice. The braid for type II, classes 1, 3, and 4 laces shall be round and shall not be pressed. The braid for type III, class 1 laces shall be square and shall not be pressed. The braid for the laces shall conform to the physical requirements in table I when tested as specified in 4.4.4.

TABLE I. Physical requirements

Type	Class	Width Tolerance ( $\pm 1/32$ inch)	Carriers, min	Ends per carrier, min	Warp ends, min	Stuffer, min	Picks per inch, min	Breaking strength (pounds), min
I	1	7/32	44	1	-	-	38	95
I	2	10/32	44	2	-	-	26	175
I	3	9/32	44	2	-	-	21	185
II	1	3/32 (diam.)	16	1	-	-	28	100
II	2	8/32	44 <sup>1/</sup>	1 or 2 <sup>2/</sup>	-	-	17	190
II	3	4/32 (diam.)	8	2	4	1	16	180
II	4	3/32 (diam.)	16	2	-	-	24	135
III	1	4/32 (each side)	8	1	-	-	14	250

<sup>1/</sup> Carriers braiding in pairs or braiding as a basket weave.

<sup>2/</sup> Only one end per carrier required when braiding one end over and one end under.

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3.6 Tipping. Both ends of each lace shall be provided with tips  $3/4 \pm 1/16$  inch long. Types I and II lace tips shall be made from the material specified in 3.3.2. As an alternative, the ends of types I and II laces shall be self-tipped by an ultrasonic or heat molding process. The ends of type III laces shall be self-tipped by an ultrasonic or heat molding process. The lace tips shall have sufficient rigidity to perform their intended function.

3.6.1 Attached tip gripping strength. When attached tips are used, the tips shall have a minimum gripping strength of 25 pounds for classes 1, 3, and 4 laces and 40 pounds for class 2 laces when tested as specified in 4.4.4.

3.6.2 Attached tip compression strength. When attached tips are used, the tips shall not crack, dislodge from their position, or peel from the lace when tested as specified in 4.4.4.

3.7 Length. Laces shall be furnished in lengths, including tips, as specified (see 6.2). The laces shall be cut so as to ensure the specified length when tested as specified in 4.4.4. Laces under 40 inches shall have a length tolerance of plus 5 percent, and laces 40 inches and longer shall have a length tolerance of plus 3 percent.

3.8 Workmanship. The finished laces 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 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 assure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items must 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 requirement in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of 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 6.2), it shall be examined for the defects specified in 4.4.2 and 4.4.3 and tested for the characteristics specified in table III. The presence of any defect or failure to pass any test shall be cause for rejection of the first article.

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 specifications unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase document.

4.4.1.1 Certification. Components and materials listed below shall be accepted on the basis of a contractor's certificate of compliance with the indicated requirements.

TABLE II. Certification

Component or material	Requirement	Requirement paragraph
Yarn	Material identification, deniers, and construction	3.3.1
Nylon or acetate sheet or film (when used)	Material identification and thickness	3.3.2

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4.4.2 End item visual examination. The end item shall be examined for the defects listed below. The lot size shall be expressed in units of laces. The sample unit shall be one lace. The inspection level shall be I and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 4.0.

<u>Examine</u>	<u>Defect</u>
Laces	Any broken yarn Frayed Rub or abrasion marks Hole, cut, or tear Unevenly braided resulting in open place or break in continuity of braid Pulled yarn or uneven tension resulting in uneven width Other than tubular braided with a core, when applicable Flat lace, when applicable, not flat for a distance of 2 inches or more Round lace, when applicable, not round for a distance of 2 inches or more Slub, knot, or abruptly thickened place which may affect utility Color other than specified Offshade Spot, stain, or other discoloration affecting appearance Objectionable odor
Tipping	Any tip missing, damaged, malformed, or insecurely attached Inadequate heat molding (when applicable), e.g., burned, brittle, incomplete, sharp edges Tipping of braid not neatly accomplished Color of tips not black or clear for black laces or not clear for other than black laces End of tip projects beyond the braid more than 1/16 inch (for attached tips only) End of braid projects beyond the tip end more than 1/16 inch (for attached tips only) Thickness, width, or diameter of tip greater than thickness, width, or diameter of braid



4.4.3 Tip length examination. The tips of the laces shall be examined for conformance to the length specified in 3.7. Any tip length not within the specified tolerance shall be classified as a defect. The lot size shall be expressed in units of laces. The sample unit shall be one lace. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 1.0.

4.4.4 End item testing. The end item shall be tested for the characteristics listed in table III. The methods of testing specified in FED-STD-191, wherever applicable, and as listed in table III shall be followed. The lot size shall be expressed in units of laces. The sample unit shall be 20 laces, except that when the laces have been self-tipped by heat molding, the sample unit shall be 15 laces. The inspection level shall be S-1 and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

TABLE III. End item tests

Characteristic	Requirement paragraph	Test method
Colorfastness to water	3.4.2	5630
Braiding type	3.5	Visual <u>1/</u>
Width or diameter	Table I	4.5.1 <u>2/</u>
Carriers	Table I	Visual <u>1/</u>
Ends per carrier	Table I	Visual <u>1/</u>
Warp ends (type II, class 3)	Table I	Visual <u>1/</u>
Stuffer (type II, class 3)	Table I	Visual <u>1/</u>

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TABLE III. End item tests - Continued

Characteristic	Requirement paragraph	Test method
Picks per inch	Table I	Visual <u>1/</u>
Breaking strength	Table I	6016 and 4.5.3
Gripping strength (attached tips)	3.6.1	4.5.5 <u>3/</u>
Compression strength (attached tips)	3.6.2	4.5.4 <u>1/</u>
Length, overall	3.7	4.5.2 <u>1/</u>

1/ The number of determinations per sample unit shall be one.

2/ Three specimens shall be selected from each sample unit for testing.

3/ A minimum of five specimens shall be selected from each each sample unit for testing, and ten determinations made on each sample unit.

4.4.5 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.

ExamineDefect

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

<u>Examine</u>	<u>Defect</u>
Workmanship	Inadequate application of components, such as incomplete sealing or closure of flap, improper taping, loose strapping, or inadequate stapling Bulged or distorted container
Content	Number of laces per bundle is more or less than specified <sup>1/</sup> Number of bundles per container is more or less than specified

<sup>1/</sup> For this defect, one bundle from each shipping container shall be examined.

4.4.6 Palletization examination. The fully packaged and palletized end items shall be examined for the defects listed below. The lot size shall be expressed in units 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 requirement
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

#### 4.5 Methods of inspection.

4.5.1 Width or diameter test. The width or diameter shall be determined at three points at least 9 inches apart on each specimen in the sample unit. The measurements shall be taken by steel rule graduated in thirty-seconds of an inch or by a caliper-type gage. Take the measurements with the specimen suspended vertically under a load of 3 ounces for classes 1 and 4 laces and 6 ounces for classes 2 and 3 laces. The results of all determinations on the sample unit shall be averaged and reported to the nearest 1/32 inch.

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4.5.2 Length test. The finished lace shall not be stretched or tensioned prior to the length test. Suspend the finished lace vertically under a load of 3 ounces for classes 1 and 4, and 6 ounces for classes 2 and 3, and then measure the lace from end to end including tips.

4.5.3 Breaking strength test. The breaking strength of the laces shall be determined as specified in Method 6016 of FED-STD-191 except that the clamps shall be not less than 2 inches in diameter and the distance between the center of the clamps at the start of the test shall be 6 inches  $\pm$  1/16 inch. When the lace length is less than 24 inches, a flat-type jaw shall be used in lieu of a drum-type jaw.

4.5.4 Compression strength test. Place the tip between flat blocks of steel and subject it to a gradually applied crushing load of 1000 pounds.

4.5.5 Gripping strength test.

4.5.5.1 Test specimen. The specimen shall be a one-half length of a shoe lace. (Two determinations may be made from one complete shoe lace.)

4.5.5.2 Apparatus.

4.5.5.2.1 Testing machine. The testing machine shall be as described in Method 5100 of FED-STD-191 except a slotted metal plate as shown in figure 1 shall be used in connection with the top jaw assembly and the distance between the upper jaw (slotted metal plate) and the lower jaw or clamp shall be 4 inches  $\pm$  1/16 inch. The lower jaw shall be as described in Method 5100 of FED-STD-191.

4.5.5.2.2 Metal plate (figure 1). The rigid metal plate shall be of approximate dimensions of 5 inches long by 1 1/2 inches wide and shall contain a 4-inch tapered slot centered widthwise and running lengthwise from an inside dimension of 1/32 inch in width, increasing to a width of 1/4 inch at the outside edge. The slot shall be smoothly finished. It is not required that the plate be of a single piece of metal. The slot may be formed by a clamped or bolted assembly of two metal bars or plates properly spaced apart. The plate shall be supported in a horizontal position in, or on, top jaw of the apparatus.

4.5.5.2.3 Procedure. Pass the lace upward, tip first, through the jaw assembly and through the wide end of the slot until the tip clears the plate, and then move it horizontally toward the narrow end of the slot until the end of the tip rests on top of the metal plate. Fasten the free end of the specimen (lace) in the lower jaw or clamp. Start the machine with the pawl in contact with the ratchet, and record the maximum resistance in displacing the

tip. Apply force to the specimen at such a rate that the pulling clamp will travel at a uniform speed of 12 inches  $\pm$  0.5 inch per minute. After the tip has been forced from the lace, read the resultant force from the dial, scale, or chart and record the value to the nearest pound. Buckling of the tip material at the base of the tip without the tip being removed from the lace shall not be considered as a failure of the tip. The results of all determinations on the sample unit shall be averaged and reported to the nearest 1 pound.

## 5. PACKAGING

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

5.1.1 Level A. Five gross of laces of one type, class, length, and color only shall be packed in a bundle having approximate overall dimensions as specified in table IV. Prior to bundling, the laces shall be grouped full length in one-gross lots and securely tied together. Each bundle shall be completely wrapped in 50-pound minimum basis weight kraft paper conforming to A-A-203. The wrap shall be securely sealed with 2-inch minimum width gummed paper tape conforming to type III, grade B of PPP-T-45.

5.1.2 Commercial. Laces 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. Laces of one type, class, length, and color only, preserved as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC-L, grade V2s of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class weather-resistant, variety DW, grade V15c of PPP-B-636. Level A bundles shall be packed in the quantities and arrangement as specified in table IV. Approximate inside dimensions of each shipping container shall be as specified in table IV. Each shipping container shall be closed in accordance with method III, waterproofed in accordance with method V, and reinforced as specified in the appendix of PPP-B-636, except that inspection shall be in accordance with 4.4.5. 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.

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TABLE IV. Packing details

Bundle 1/		Arrangement in container			Shipping container 1/					
Type	Class	Length (inches)	Overall dimensions (inches)	Number of bundles per cont.	Length	Width	Depth	Length	Width	Depth
I	1	30	15 by 7 1/2 by 3 1/2	16	2	2	4	30	15	14 1/4
II	1	60	30 by 7 1/2 by 7	4	1	2	2	30	15	14 1/4
I	2	40	10 by 15 by 7	8	2	2	2	30	20	14 1/4
I	2	60	30 by 7 1/2 by 7	4	1	2	2	30	15	14 1/4
I	2	64	16 by 15 by 7	4	2	1	2	30	16	14 1/4
II	3	60	30 by 7 1/2 by 7	4	1	2	2	30	15	14 1/4
I	1	18	9 by 7 1/2 by 3 1/2	16	2	2	4	18	15	14 1/4
I	2	84	21 by 15 by 3 1/2	8	2	1	4	30	21	14 1/4
I	3	84	21 by 15 by 3 1/2	8	2	1	4	30	21	14 1/4
III	1	72	25 1/2 by 24 1/2 by 17 1/2	17	-	-	-	26	25	17 1/4
III	1	87	25 1/2 by 24 1/2 by 17 1/2	17	-	-	-	26	25	17 1/4
III	1	97	25 1/2 by 24 1/2 by 17 1/2	17	-	-	-	26	25	17 1/4

1/ Bundle and container dimensions are approximations and are furnished as a guide only.

5.2.2 Level B packing. Laces of one type, class, length, and color only, preserved as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC-L, type CF (variety SW) or type SF, class domestic, grade 275 of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class domestic, variety DW, grade 200 of PPP-B-636. Level A bundles shall be packed in the quantities and arrangement as specified in table IV. Approximate inside dimensions of each shipping container shall be as specified in table IV. Each shipping container shall be closed in accordance with method II as specified in the appendix of PPP-B-636, except that inspection shall be in accordance with 4.4.5.

5.2.2.1 Weather-resistant fiberboard containers. When specified (see 6.2), the shipping container shall be grade V3c, V3s, or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with method III as specified in PPP-B-636, except inspection shall be in accordance with 4.4.5.

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

5.3 Palletization. When specified (see 6.2), laces, packed as specified in 5.2.2 and 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. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means K and L or film bonding means O or P. Pallet patterns shall be in accordance with appendix of MIL-STD-147. Interlocking of loads shall be effected by reversing the pattern of each course.

5.4 Marking. Marking shall be in accordance with 5.4.1 or 5.4.2, as specified (see 6.2).

5.4.1 Civil agencies. In addition to any special marking required by the contract or purchase order, wrapped bundles, shipping containers, and palletized unit loads shall be marked in accordance with FED-STD-123 or ASTM D 3951, as applicable.

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

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6. NOTES

6.1 Intended use. The nylon laces are intended for use with various types of footwear, clothing, and equipage.

6.2 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 specification.
- b. Type, class, and length required (see 1.2 and 3.7).
- c. When a first article is required (see 3.2, 4.3, and 6.4).
- d. Color required (see 3.4).
- e. Selection of applicable levels of preservation and packing (see 5.1 and 5.2).
- f. Type and class of unit load required (see 5.2.1).
- g. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).
- h. When palletization is required (see 5.3).
- i. Marking required (see 5.4).

6.3 Standard sample. For access to samples, address the contracting activity issuing the invitation for bids.

6.4 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 include specific instructions in all acquisition instruments regarding arrangements for selection, inspection, and approval of the first article.

6.5 Recycled materials. It is encouraged that recycled material be used when practical as long as it meets the requirements of the specification (see 3.3).

6.6 Subject term (key word) listing.

Clothing  
Equipage  
Footwear  
Laces, nylon



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**MILITARY INTERESTS:**

Custodians

Army - GL  
Navy - NU  
Air Force - 99

Review Activities

Army - MD  
Air Force - 82  
DLA - CT

User Activities

Navy - MC  
Air Force - 45

**CIVIL AGENCY COORDINATING ACTIVITY:**

GSA - FSS

**PREPARING ACTIVITY:**

Army - GL

Project No. 8335-0164

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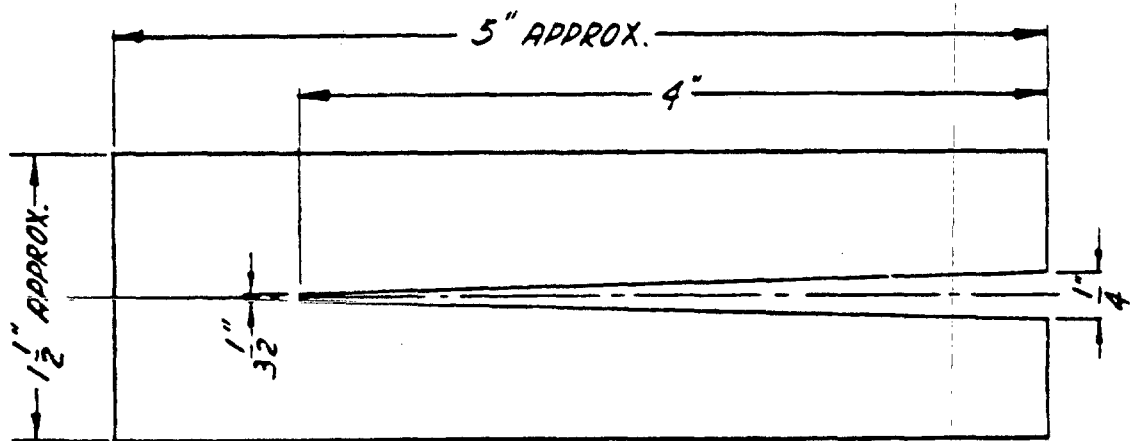


FIGURE 1. Slotted metal plate

