

INCH POUND

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 SUPERSEDING
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DETAIL SPECIFICATION

CORD, FIBROUS LINEN, SHOCK ABSORBER SERVING USE

Inactive for new design after 16 June 1997

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

1. SCOPE

1.1 Scope. This specification covers one type of braided linen cord.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in section 3, 4, or 5 of this standard. This section does not include documents cited in other sections of this standard or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in section 3, 4, or 5 of this standard, whether or not they are listed.

2.2 Government documents.

2.2.1 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 cited in the solicitation or contract.

FEDERAL STANDARDS

FED-STD-191 Textile Test Methods

(Copies of this documents are available online at <http://assist.daps.dla.mil> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 Non-Government publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

AMERICAN SOCIETY FOR QUALITY (ASQ)

ASQ Z1.4 Sampling Procedures and Tables for Inspection by Attributes

(Copies of this document are available from www.asq.org or the American Society for Quality, 611 East Wisconsin Avenue, Milwaukee, WI 53202.)

Comments, suggestions, or questions on this document should be addressed to Defense Supply Center Philadelphia (DSCP), ATTN: DSCP-NASA, 700 Robbins Avenue, Philadelphia, PA 19111-5096 or e-mail to dscpg&inspeccomments@dlamail. Since contact information can change, you may want to verify the currency of this address information using ASSIST Online database at <http://assist.daps.dla.mil>.

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2.4 Order of precedence. Unless otherwise noted herein or in the contract, 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 Government and contractor purchases. The requirements specified in 3.6 and 3.7 apply only to cord purchased directly by the Government. All other requirements apply to cord purchased by a contractor as a component for an end item and to cord purchased directly by the Government.

3.2 Material. The cord shall be fabricated from flax fiber processed to meet the requirements of this specification.

3.3 Color. Unless otherwise specified (see 6.2), the cord shall be furnished in the natural color of the fiber.

3.4 Construction. The cord shall be braided with core construction when tested as specified in 4.2.4.

3.5 Physical requirements. The finished waxed cord shall conform to the physical requirements specified in table I when tested as specified in 4.2.4.

TABLE I. Physical requirements.

Characteristic	Requirement
Number of carriers	8
Number of core yarns	4
Picks per inch	9
Ply of yarns:	
Core	Singles
Sleeve	Singles
Breaking strength	75 pounds
Length per pound	570 feet
Diameter .	3/32 \pm 1/64 inch

3.5.1 Chloroform-soluble material (wax content). The cord shall have a waxed finish. The chloroform-soluble material of the finished waxed cord shall be not less than 5.0 nor more than 10.0 percent when tested as specified in 4.2.4.

3.6 Put-up. Unless otherwise specified (see 6.2), the cord shall be furnished without knots or splices on 1-pound net weight tubes. A plus or minus tolerance of 10 percent in weight will be permitted on any one tube provided that the average weight of a sampling of tubes does not fall below 1 pound. Each tube shall contain not more than three pieces and no piece shall be less than 50 feet in length, or each tube shall contain not more than two pieces with no minimum length applicable. The tube shall be wound so that each turn and layer is free from entanglement.

3.7 Identification. Each cube shall have a label attached in such a manner as to remain in place and be clearly legible until all cord has been removed. The label shall be printed, stamped or typed with water insoluble ink and shall include the information specified below:

- Stock number
- Nomenclature
- Length
- Contract number and date
- Contractor's name

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3.8 Workmanship. The finished cord shall conform to the quality and grade of product established by this specification.

4. VERIFICATION

4.1 Certificate of compliance. Where certificates of compliance are submitted, the Government reserves the right to check test such items to determine the validity of the certification.

4.2 Conformance inspection. Sampling for inspection shall be performed in accordance with ASQ Z1.4, except where otherwise indicated hereinafter. Unless otherwise specified, the Acceptable Quality Limits (AQLs) listed in this section shall be used to establish the sample sizes, however, the acceptance number shall be zero.

4.2.1 Inspection of components and materials. Unless otherwise specified in the contract or order, the contractor shall inspect components and materials in accordance with all requirements of referenced specifications, drawings, and standards unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase document.

4.2.2 Examination of the end item for visual defects. The defects listed in table II 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. The sample unit for this examination shall be one tube. Not less than 100 feet from each sample unit shall be subjected to the visual examination. The lot size for this examination shall be expressed in units of tubes. The acceptable quality level (AQL) shall be 1.5 major defects and 4.0 total defects (major and minor combined) per 100 units. The inspection level shall be level I.

TABLE II. Classification of visual defects.

Examine	Defect	Classification	
		Major	Minor
Appearance and workmanship	Any cut.	X	
	Chafed or damaged.	X	
	Kink, broken strand, or loose strand.	X	
	Unevenly braided resulting in open places, breaks in continuity of braid, or soft spots.	X	
	Finish gummy or tacky.	X	
Color	Other than specified.	X	
Cleanness	Spot or stain, clearly visible ^{1/}		X
Identification label	Omitted or improperly attached.		X
	Information incorrect or illegible.		X

^{1/} At normal inspection distance of approximately 3 feet

4.2.3 Examination for weight and winding. The sample unit for this examination shall be one tube. The inspection level shall be S-3 and the AQL shall be 4.0 percent defective. The lot size shall be the number of units in the inspection lot. Defects shall be as listed in 4.2.3.1 and 4.2.3.2.

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4.2.3.1 Examination for weight. Any sample unit (tube) with net weight less than the minimum or greater than the maximum specified in 3.6 shall be classified as a defective unit. In addition, if the average weight of a sample of tubes is less than 1 pound, the lot shall be rejected.

4.2.3.2 Examination for winding. Defects with regard to winding shall be considered to exist if any of the following are determined during inspection:

- (a) Improperly or not firmly wound resulting in kinking, knotting, entangling, or slippage during unwinding or otherwise affecting free unhampered unwinding of cord.
- (b) Put-up not as specified.
- (c) Any tube found to contain more than three pieces.
- (d) Any piece less than 50 feet in length (except when there are only two pieces per tube).
- (e) Any knot or splice.

4.2.4 Testing of the end item. The methods of testing specified in FED-STD-191, wherever applicable and as listed in table IV shall be followed. When the data in the "Number of determinations" and "Results reported as" columns are not specified in the table, they shall be as required by the referenced test method. 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. The sample size shall be in accordance with table III. The sample unit for testing shall be one tube of cord. The lot size shall be expressed in units of tubes. All test reports shall contain the individual values utilized in expressing the final result. The lot shall be unacceptable if one or more units fail to meet any requirement. Tests to determine compliance with specification requirements, including quantity of delivery, may be made under prevailing atmospheric conditions. In cases of dispute, tests shall be made upon material which has reached equilibrium under Standard Conditions as defined in FED-STD-191.

TABLE III. Sampling for tests.

Lot size (tubes)	Sample size
800 or less	2
801 up to and including 22,000	3
22,001 and over	5

TABLE IV. Test methods.

Characteristic	Requirement paragraph	Test method	No. of determinations per sample unit	Results reported as
Material (strands and core)	3.2	1200 <u>1/</u>	-	-
Construction	3.4	Visual	1	Pass or fail
Number of carriers	3.5	Visual	1	Whole number
Number of core yarns	3.5	Visual	1	Pass or fail
Picks per inch	3.5	6001	-	-
Ply of yarns:	3.5	Visual	1	Pass or fail
Breaking strength	3.5	6015	5	-
Length per pound	3.5	6004 <u>2/</u>	2	-
Diameter	3.5	6002	3	Avg. of 3 deter. to nearest 1/64 inch
Chloroform soluble material (wax content)	3.5.1	2611		

1/ A contractor's certificate of compliance will be accepted for this requirement.

2/ Except that the test specimen shall be a minimum of 30 yards of cord.

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5. PACKAGING.

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from then managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

6.1 Intended use. The cord is intended for serving the ends of shock absorbers.

6.2 Ordering data. Procurement documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) Color if other than natural (see 3.3).
- (c) Put-up if other than specified (see 3.6).
- (d) Packaging requirements (see 5.1).

6.3 Subject term (key word) listing.

Braided
Cordage
Fiber
yarns

6.4 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.¹

Custodians:
Army - GL
Air Force - 99

Preparing activity:
DLA – IS

(Project 4020-2009-003)

Review activity:
Army - AV

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST online database at <http://assist.daps.dla.mil>.