Downloaded from http://www.everyspec.com

MIL-C-2522E
9 June 1977
SUPERSEDING
MIL-C-2522D
5 December 1967

MILITARY SPECIFICATION

CORD, FIBROUS LINEN, SHOCK ABSORBER SERVING USE

This specification is approved for use by all Departments 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 Issues of documents. The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

SPECIFICATIONS

MILITARY

MIL-C-3131 - Cordage; Preparation for Delivery of.

STANDARDS

FEDERAL

FED-STD-191 - Textile Test Methods

MILITARY

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

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

FSC 4020

Downloaded from http://www.everyspec.com

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

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 4.2.5.

3.5 Physical requirements. The finished waxed cord shall conform to the physical requirements specified in table I when tested as specified in 4.2.5.

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 ± 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 4.2.5.

Downloaded from http://www.everyspec.com

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 tube 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

3.8 Workmanship. The finished cord shall conform to the quality and grade 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, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, 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 the specification where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

4.1.1 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 Quality conformance inspection. Sampling for inspection shall be performed in accordance with MIL-STD-105, except where otherwise indicated hereinafter.

Downloaded from http://www.everyspec.com

4.2.1 Inspection of components and materials. In accordance with 4.1 above, components and materials shall be inspected 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.

Downloaded from http://www.everyspec.com

* 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 Inspection of preparation for delivery requirements. Packaging, packing, and marking shall be inspected in accordance with the quality assurance provisions of MIL-C-3131, except that the inspection level shall be S-2 and the AQL shall be 2.5 defects per 100 units.

* 4.2.5 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.

Downloaded from http://www.everyspec.com

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 1/	-	-
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 2/	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.

Downloaded from http://www.everyspec.com

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

5. PREPARATION FOR DELIVERY

5.1 Packaging. Packaging shall be level A or C as specified (see 6.2).

5.1.1 Levels A and C. The cord shall be packaged in accordance with the applicable requirements of MIL-C-3131.

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

5.2.1 Levels A, B and C. Cord shall be packed in accordance with applicable requirements of MIL-C-3131.

5.3 Marking. In addition to any specified markings required by the contract or order, interior packages and shipping containers shall be marked in accordance with MIL-C-3131.

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) Selection of applicable levels of packaging and packing (see 5.1 and 5.2).

6.3 Changes from previous issue. The margins of this specification are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Downloaded from http://www.everyspec.com

Custodians:

Army - GL
Air Force - 99

Review activity:

DLA - IS

User activity:

Army - AV
Navy - MC

Preparing activity:

Army - GL

Project No. 4020-0209

Downloaded from http://www.everyspec.com

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

OMB Approval No. 22-R255

INSTRUCTIONS: The purpose of this form is to solicit beneficial comments which will help achieve procurement of suitable products at reasonable cost and minimum delay, or will otherwise enhance use of the document. DoD contractors, government activities, or manufacturers/vendors who are prospective suppliers of the product are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. 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. Attach any pertinent data which may be of use in improving this document. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity.

DOCUMENT IDENTIFIER AND TITLE

CORD, FIBROUS LINEN, SHOCK-ABSORBER SERVING USE MIL-C-2522 Rev. "E"

NAME OF ORGANIZATION AND ADDRESS

CONTRACT NUMBER

MATERIAL PROCURED UNDER A

☐ DIRECT GOVERNMENT CONTRACT ☐ SUBCONTRACT

1. HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A. GIVE PARAGRAPH NUMBER AND WORDING.

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

2. COMMENTS ON ANY DOCUMENT REQUIREMENT CONSIDERED TOO RIGID

3. IS THE DOCUMENT RESTRICTIVE?

☐ YES ☐ NO *(If "Yes", in what way?)*

4. REMARKS

SUBMITTED BY *(Printed or typed name and address - Optional)*

TELEPHONE NO.

DATE

DD FORM 1 JAN 72 1426

REPLACES EDITION OF 1 JAN 66 WHICH MAY BE USED

Downloaded from http://www.everyspec.com

FOLD

DEPARTMENT OF THE ARMY
US ARMY NATICK RESEARCH and DEVELOPMENT COMMAND
NATICK, MASSACHUSETTS 01760

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300
DRXNM-TD

POSTAGE AND FEES PAID
DEPARTMENT OF THE ARMY
DOD – 314

Commander
US Army Natick Research and Development Command
ATTN: DRXNM-TD
Natick, MA 01760

NATICK OP 1 Apr 76

FOLD