

MIL-C-43258B

6 April 1977

SUPERSEDING

MIL-C-43258A

1 December 1967

MILITARY SPECIFICATION

CORD, FIBROUS, LINEN. (PLUMB-BOB 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.

SPECIFICATION

MILITARY

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

STANDARDS

FEDERAL

FED-STD-191 - Textile Test Methods

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 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

MIL-C-43258B

MILITARY

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

(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 3.7 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 purchases 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. The cord shall be furnished in the natural color.

* 3.4 Physical requirements. The finished braided cord shall conform to the requirements specified in table I when tested as specified in 4.3.

TABLE I. Physical requirements

Number of individual strands (carriers)	8
Direction of individual strand twist	4 strands "S" twist 4 strands "Z" twist
Braided cord diameter, inches (minimum)	3/64
Braided cord length per pound, feet (minimum)	1350
Braided cord breaking strength, pounds (minimum)	48

MIL-C-43258B

3.5 Chloroform-soluble material. The cord shall have a hard polished finish with a smooth dressed surface. The chloroform-soluble material of the finished cord shall be not less than 5.0 nor more than 25.0 percent when tested as specified in 4.3.

3.6 Acidity (pH). The pH value of the water extract of the cord shall be not less than 5.5 nor more than 7.5 when tested as specified in 4.3.

3.7 Put-up. Unless otherwise specified (see 6.2), the cord shall be furnished without knots or splices in not less than 24.5-yard nor more than 26-yard lengths and shall be put up on pressed wood fiberboard (tempered hardboard), plastic or wood surveyors' blocks (winders) measuring approximately 2-3/8 by 4-3/4 inches overall. Each length of cord shall be continuous throughout, shall contain no loose ends, and shall be so wound that each turn and layer is free from entanglement.

3.8 Workmanship. The finished braided 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 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 when otherwise indicated hereinafter.

MIL-C-43258B

4.2.1 Inspection of components and materials. In accordance with 4.1 above, components and materials shall be inspected in accordance with all the requirements of referenced specifications, drawings, and standards unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase documents. In addition, the contractor shall furnish a certificate of compliance thereto, for the surveyors' block (winder) requirements specified in 3.7.

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 one defect shall be counted. The sample unit for this examination shall be one block (winder) of cord. The lot size for this examination shall be expressed in units of blocks (winders). The acceptable quality level (AQL) shall be 2.5 total defects per 100 units. The inspection level shall be level I.

TABLE II. Visual examination

Examine	Defect
Appearance and workmanship	Any cut. Chafed or damaged. Broken or loose end or strand. Unevenly braided resulting in open place, break in continuity of braid, or soft spot. Finish other than specified.
Color	Other than natural.

4.2.3 Examination for length and winding. The sample unit for this examination shall be one block (winder). The inspection level shall be S-3 and the AQL shall be 4.0 percent defective. For lots consisting of 500 or fewer units, the sample size (number of sample units) shall be 10 and the acceptance number 1. The lot size shall be the number of blocks (winders) in the inspection lot. Defects shall be as listed in 4.2.3.1 and 4.2.3.2.

4.2.3.1 Examination for length. A defect with regard to length shall be considered to exist if the length on any block (winder) in the sample is not within the range specified in 3.7.

MIL-C-43258B

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) Not in a continuous length.
- (c) Any knot or splice.
- (d) Put-up not as specified.

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.

- * 4.3 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 of one block (winder) of cord. The lot size shall be expressed in units of blocks (winders). All test reports shall contain the individual values utilized in expressing the final result. The lot shall be unacceptable if one or more units fails 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

<u>Lot size (blocks)</u>	<u>Sample size</u>
800 or less	2
801 up to and including 22,000	3
22,001 and over	5

MIL-C-43258B

TABLE IV. Test methods

Characteristic	Requirement paragraph	Test method	No. of determinations per sample	Results reported as
Material identification	3.2	1200	-	-
Number of strands	Table I	Visual	1	Pass or fail
Direction of strand twist	Table I	Visual	1	Pass or fail
Diameter	Table I	6002	3	Average of 3 deter. to nearest 1/64 inch
Length per pound	Table I	6004 <u>1/</u>	-	-
Breaking strength	Table I	6015	-	-
Choloroform-soluble material	3.5	2611	-	-
Acidity (pH)	3.6	2811	-	-

1/ Except that the test-specimen shall be a block (winder) of cord and the results shall be converted to feet per pound.

5. PACKAGING

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 the applicable requirements of MIL-C-3131.

MIL-C-43258B

5.3 Marking. In addition to any special markings required by the contract, 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 plumb-bob use on surveying equipment.

6.2 Ordering data. Procurement documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) Put-up, if other than specified (see 3.7).
- (c) 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.

Custodians:

Army - GL
Air Force - 99

Preparing activity:

Army - GL
Project No. 4020-0223

Review activity:

DSA - IS

User activities:

Army - ME
Navy - YD, MC

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

Rev. "B" to MIL-C-43258 Cord, Fibrous, Linen, (Plumb-Bob Use)

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 1426
1 JAN 72

REPLACES EDITION OF 1 JAN 66 WHICH MAY BE USED

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