

INCH-POUND

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 SUPERSEDING
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DETAIL SPECIFICATION

ROPE, FIBROUS - DOUBLE-BRAIDED (POLYESTER)

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 double-braided polyester fibrous rope for general purpose use.

2. APPLICABLE DOCUMENTS

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

FEDERAL

UU-T-81 - Tags, Shipping and Stock

DEPARTMENT OF DEFENSE

MIL-L-17331 - Lubricating Oil, Steam Turbine and Gear, Moderate
 Service.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Industrial Supply Center, ATTN: DISC-BBEE, 700 Robbins Avenue, Philadelphia, PA 19111-5096 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 4020

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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STANDARDS

FEDERAL

FED-STD-191 - Textile Test Methods.

(Unless otherwise indicated, copies of the above specifications, standards and handbooks are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5096.)

2.3 Non-Government publications. The following document(s) form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents which are DoD adopted are those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

American Society For Testing and Materials (ASTM)

- D 885 - Standard Methods of Testing Tire Cords, Tire Cord Fabrics, and Industrial Filament Yarns Made From Man - Made Organic Base Fibers.
- D 1141 - Standard Specification for Substitute Ocean Water. (DoD Adopted)
- D 1577 - Standard Test Methods for Linear Density of Textile Fibers.
- D 2257 - Standard Test Method for Extractable Matter in Textiles. (DoD Adopted)
- D 2258 - Standard Practice for Sampling Yarn for Testing.

(Application for copies should be addressed to the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken. PA 19428-2959.)

2.4 Order of Precedence. In the event of a conflict between 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 6.4) in accordance with 4.2.

3.2 Other identification and put-up. Unless otherwise specified (see 6.2), the requirements specified in 3.9 and 3.10 apply to double braided polyester ropes purchased directly by the Government. Other requirements apply to double braided polyester ropes purchased as a component for an end item by a contractor and to double braided polyester ropes purchased directly by the Government.

3.3 Materials. The inner and outer braids shall be fabricated from bright white, virgin, continuous filament, heat and light resistant polyester fiber. Polyester fiber is a long chain synthetic polymer composed, at least 85 percent by weight, of an ester of a substituted aromatic carboxylic acid, including but not restricted to substituted terephthalate units and parasubstituted hydroxybenzoate units. The average fiber linear density per filament shall not be less than 5.0 denier per filament. The fiber tenacity shall not be less than 8.0 grams per denier (see 4.3.1).

3.3.1 Fiber finish. Unless otherwise specified (see 6.2), the manufacturer shall use polyester fibers with a marine overlay finish that will ensure in the marine environment that the rope will give improved performance that is better than that of the rope made of fibers without an overlay finish. The overlay finish must be highly water insoluble, must resist wash off due to contact with water, and have long term durability with respect to evaporation and reaction with ordinary outdoor marine environments. The finish shall improve the ability to resist internal fiber to fiber abrasion and external abrasion (see 4.4.1). The overlay finish provided shall not violate any other requirements of this specification.

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3.4 **Construction.** The rope shall be double braided construction wherein an inner braid of hollow structure manufactured in a separate operation shall serve as the core, while a cover (outer braid) is braided over it in a second operation. The weight of either constituent, the inner braid or the outer braid, shall not be greater than 55 percent of the total weight of the rope. Heat setting by the rope manufacturer of yarns or finished rope shall not be acceptable. Polyester fibers of different types or grades, or fibers of different manufacturers shall not be mixed within the core or within the cover. Polyester fibers used in the core may, however, differ in type, grade, or manufacturing sources from those used in the cover, provided fiber components meet the requirements of 3.3. If the braking elongation of the fibers used in the core and in the cover are different, the higher elongation fiber shall be used in the core.

3.4.1 **Yarns.** Core yarns shall be one size and all cover yarns shall be one size, the producer shall provide type of yarn that has been designed for cordage and tested for its suitability for this application (see 6.3). In the manufacture of each braid, one half of the yarns shall have an "S" twist, while the remaining yarns shall have a "Z" twist. Yarns shall have sufficient twist so that the filaments on the outer surface of the inner and outer braids are essentially parallel to the axis of the rope. The type of braid, number of strands, yarns per strand, and multipliers for the respective inner and outer braids shall be as specified in tables I and II.

TABLE I. Structural requirements for inner braid or core.

Rope size, nominal, circumference, (inches)	Type of braid	Number of strands	Yarns per strand		Multiplier for determination of pick count	
			Min	Max	Min	Max
3/4 to 2 - 1/4	Plain	8	2	6	1.3	1.9
3/4 to 2 - 1/4	Twill	12	1	4	2.0	3.2
2 - 1/2 to 7 - 1/2	Plain	8	2	6	1.3	1.9
2 - 1/2 to 7 - 1/2	Twill	12	1	4	2.0	3.2
2 - 1/2 to 7 - 1/2	Twill	16	1	3	3.0	3.8
8 to 16	Twill	12	1	4	2.0	3.2
8 to 16	Twill	16	1	3	3.0	3.8

TABLE II. Structural requirements for outer braid or cover.

Rope size nominal, circumference (inches)	Type of Braid	Number of strands	Yarns per Strand		Multiplier for determination of pick count	
			Min	Max	Min	Max
3/4 to 1 - 1/2	Twill	16	2	3	6.0	7.0
1 - 1/2 to 2 - 1/4	Twill	20	2	2	6.8	7.8
2 - 1/4 to 5 - 1/2	Twill	24	2	2	7.6	8.6
5 to 16	Twill	32	1	2	9.0	11.0

3.4.2 **Multipliers.** Multipliers shown in tables I and II overcome the complexity of listing a range of pick counts for every size. Pick count and circumference for either the inner or outer braid shall be measured at the appropriate load P (table III) for the nominal rope size and shall be used in all calculations for the inner and outer braids as appropriate. The calculation is as follows:

Multiplier - pick count times circumference.

3.4.3 **Texture.** The texture of the finished rope shall be firm without sleaziness, and the cover (outer braid) shall fit closely around the core (inner braid) when inspected with the rope in a relaxed state.

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3.5 Physical requirements. The finished rope shall conform to the physical properties specified in table III when tested as specified in 4.5. The circumference shall be as specified in table III (see 6.2)

TABLE III. Physical Properties.

Circumference at load P (nominal inches)	Diameter (nominal inches)	Load P (pounds)	Linear density plus or minus 5 percent (pounds/100 feet)	Breaking strength (minimum pounds)
3/4	1/4	13	2.0	1900
1	5/16	20	3.1	2935
1 - 1/8	3/8	28	4.5	4245
1 - 5/16	7/16	38	6.1	5730
1 - 1/2	1/2	50	8.0	7500
1 - 3/4	9/16	63	10.1	9450
2	5/8	78	12.5	11660
2 - 1/4	3/4	113	17.9	16610
2 - 1/2	13/16	132	21.1	19580
2 - 3/4	7/8	153	24.4	22660
3	1	200	31.9	29480
3 - 1/2	1 - 1/8	253	40.4	37290
3 - 3/4	1 - 1/4	313	49.8	45870
4	1 - 5/16	345	55.0	50600
4 - 1/2	1 - 1/2	450	71.8	61000
5	1 - 5/8	528	84.0	74000
5 - 1/2	1 - 3/4	613	97.7	84000
6	2	800	128.0	105000
6 - 1/2	2 - 1/8	903	144.0	118000
7	2 - 1/4	1013	161.0	133600
7 - 1/2	2 - 1/2	1250	199.0	162000
8	2 - 5/8	1378	220.0	180000
9	3	1800	287.0	232000
10	3 - 1/4	2113	337.0	277000
11	3 - 1/2	2450	419.0	335000
12	4	3200	510.0	396150
13	4 - 1/4	3613	576.0	446500
14	4 - 1/2	4050	646.0	500650
15	5	5000	798.0	616550
16	5 - 1/4	5513	879.0	679250

3.5.1 Elongation. The elongation of the rope shall not be greater than 30 percent at the minimum breaking strength when determined as specified in 4.5.5. The load elongation curve, drawn autographically, shall not exhibit evidence of sudden changes in load applications greater than 5 percent of the load weighed at the instance of change. Changes due to splice slippage shall not be considered in this determination.

3.6 Extraneous material. No extraneous material shall be added for the purpose of weighting the rope. The extractable matter of the finished rope shall not be greater than 5 percent when tested as specified in 4.5.6.

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3.7 Moisture content. The moisture content of the rope shall not be greater than 4 percent when tested as specified in 4.5.8.

3.8 Identification marker. The manufacturer shall identify his product by inserting a water-resistant marker between the braids in all ropes larger than 1 - 1/8 inches circumference. Unless otherwise specified (see 6.2), the manufacturer's name, the year of manufacture, and type of fiber (Polyester) shall be printed on the marker in bold, easy to read type. Italic or script type shall not be used. The printing shall not be affected by exposure to salt water or mineral oil when tested as specified in 4.5.7.

3.9 Identification tag. In addition to the requirements specified in 3.8, each package unit shall have a ticked (identification tag) attached for identification purposes. The ticket shall conform to type B, class 1, size 4 or 5, 15 CSU grade of UU-T-81. The ticket shall be legibly printed, stamped, or typed with water insoluble ink. The ticket shall contain the following information:

- (a) Stock number
- (b) Nomenclature
- (c) Specification number
- (d) Length
- (e) Contract number and date
- (f) Date of manufacture and year
- (g) Contractors name.

3.10 Put - up. Unless otherwise specified (see 6.2), the rope shall be furnished without knots or splices on nonreturnable reels not larger than 7 feet in diameter. Unless otherwise specified (see 6.2), multiple lengths shall be permitted in the same put-up. When specified (see 6.2), continuous lengths, other than a standard length, may be used. The rope shall be ordered by weight. Delivered weight per reel shall be within plus 10 percent, minus 0 percent of the weight specified in table IV. The weight for lengths other than standard shall be determined in accordance with table IV with proper length ratio applied. However, the actual length shall be not less than the standard length when measured in the relaxed condition.

3.10.1 Braider splices. Braider splices shall be the overlapping continuation of a single interrupted strand (or multiple strand) with another identical strand which follows the identical path in the braid. Although it is desirable that no braider splices be present in the core or the cover of any sizes and length of rope, some methods of manufacture impose limitations. To compensate for these limitations, the following shall be acceptable:

3.10.1.1 Standard length. To allow for a braider malfunction, one braider splice shall be permitted in the core and in the cover for orders specifying standard length or less as listed in table IV.

3.10.1.2 Continuous lengths. To compensate for random strand failures when continuous lengths are greater than standard lengths and up to 1200 feet maximum, an additional braider splice shall be permitted in the core and in the cover. In producing the splices the distance of the overlapping shall be equivalent to 8 times the circumference in inches but not less than 24 inches for ropes whose sizes are 3 inches in circumference and less. If more than one of these splices are in the same strand they shall be at least 20 feet apart measured from splice center to splice center.

3.10.1.3 Splice acceptance. Because splices within the core are difficult to detect after application of the cover, the number of braider splices within the core shall be identified (see 6.3).

3.11 Workmanship. The ends of all rope shall be cut off squarely and securely whipped, taped, or heat sealed. The reels shall be wound so that each turn and layer is free from entanglement. The component braid and the finished braided rope shall conform to the quality and grade of product established by this specification.

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TABLE IV. Put-Up.

Circumference (inches)	Diameter (inches)	Standard length (feet)	Net weight per standard length (pounds)
3/4	1/4	600	12.6
1	5/16	600	19.5
1 - 1/8	3/8	600	28.4
1 - 5/16	7/16	600	38.4
1 - 1/2	1/2	600	50.4
1 - 3/4	7/16	600	63.6
2	5/8	600	78.8
2 - 1/4	3/4	600	112.8
2 - 1/2	13/16	600	133.0
2 - 3/4	7/8	600	154.0
3	1	600	201.0
3 - 1/2	1 - 1/8	600	255.0
3 - 3/4	1 - 1/4	600	314.0
4	1 - 5/16	600	347.0
4 - 1/2	1 - 1/2	600	452.0
5	1 - 5/8	600	529.0
5 - 1/2	1 - 3/4	600	616.0
6	2	600	806.0
6 - 1/2	2 - 1/8	600	907.0
7	2 - 1/4	600	1014.0
7 - 1/2	2 - 1/2	600	1254.0
8	2 - 5/8	600	1386.0
7	3	600	1808.0
10	3 - 1/4	600	2123.0
11	3 - 1/2	600	2640.0
12	4	600	3213.0
13	4 - 1/4	600	3629.0
14	4 - 1/2	600	4070.0
15	5	600	5027.0
16	5 - 1/4	600	5538.0

4. QUALITY ASSURANCE PROVISIONS

4.1 Classification of inspections. The inspection requirements specified herein are classified as follows:

- (a) First article inspection (see 4.2)
- (b) Quality conformance inspection (see 4.3)

4.2 First article inspection. First article inspection shall consist of the examinations specified in 4.4.1 and 4.4.2 and tests specified in 4.5.

4.2.1 First article sample. The first article sample for ropes shall be a continuous finished length of 70 feet.

4.3 Quality conformance inspection. Quality conformance inspection shall consist of the examinations specified in 4.4.1 and 4.4.2 and the tests specified in 4.3.1 and 4.5 (see 6.3). Unless otherwise specified herein, sampling for inspection shall be performed in accordance with tables V and VI.

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TABLE V. Sampling for visual examination and testing of the end item.

Lot size	Sample size
2 - 15	2
16 - 25	3
26 - 90	5
91 - 150	8
151 - 280	13
281 - 500	20
501 - 1200	32
1201 - 3200	50
3201 - 10000	80

TABLE VI Sampling for examination for length and winding.

Lot size	Sample size
1 - 10	All
11 - 500	10
501 - 3200	13
3201 - 10000	20

TABLE VII. Component testing.

Characteristics	Requirement	Test method	Number of determinations per individual sample unit
Fiber:			
Type	3.3	4.3.1	1
Linear density	3.3	4.3.1	1
Tenacity	3.3	4.3.1	1
Outer braid:			
Yarn size	3.4.1	Visual	1
Yarns per strand	Table II	Visual	1
Number of strands	Table II	Visual	1
Braid type	Table II	Visual	1
Multiplier	Table II	4.5.2.2	3
Heat setting	3.4	4.3.1	1
Braider splices	3.10.1	4.3.1	
Marine finish	3.3.1	4.3.1	
Inner braid:			
Yarn size	3.4.1	Visual	1
Yarns per strand	Table I	Visual	1
Number of strands	Table I	Visual	1
Braid type	Table I	Visual	1
Multiplier	Table I	4.5.2.1	3
Heat setting	3.4	4.3.1	1
Braider splices	3.10.1	4.3.1	1
Marine finish	3.3.1	4.3.1	

4.3.1 Material and component inspection. Determination shall be made for all characteristics specified in table VII, except material (see 6.3 and appendix). The linear density per filament and tenacity of the fiber shall be determined in accordance with ASTM D885, D1577 and D2258. Results shall be as pass or fail.

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4.4 Examinations.

4.4.1 End item for visual defects. The unit of product for this examination shall be one reel. Ten percent of the gross length contained on each sample unit, but not less than 100 feet, shall be subjected to the visual examination. The lot size for this examination shall be expressed in units of reels each. The sample units shall be randomly selected, and the sample size shall be as specified in table V. Any sample unit having one or more defects specified in table VIII shall be rejected. If any defects are noted in the original sample units, additional units shall be randomly selected and if any defects specified in table VIII are noted the entire lot shall be rejected.

TABLE VIII. Classification of defects.

Defects
<u>Appearance and workmanship</u> Loose fit of cover on the core. Cut, any. Chafed or damaged. Kinks or uneven braiding resulting in open places, breaks in continuity of braid, or soft spots. Broken, loose, or projecting ends in the core or cover. Excessive loose fiber ends on surface, gaps between strands. End not cut off squarely. End not securely whipped, taped, or heat sealed.
<u>Identification marker. 1/</u> Omitted, incorrect, illegible. Italic or script type used, not as specified. Not completely covered by the outer braid.
<u>Identification ticked.</u> Omitted, incorrect, illegible. Insecurely attached. Handwritten entries.
<u>Cleanliness.</u> Spot or stain clearly visible. 2/

1/ Identification marker for braids larger than 1 - 1/8 inch circumference.

2/ At normal inspection distance (approximately 3 feet).

4.4.1.1 Defects in cover material. If a fold of cover material can be formed when grasping the rope by hand along the axis, the rope shall be considered to be sleazy or lack firmness.

4.4.2 Length and winding. The sample unit for this examination shall be one reel. The sample size shall be in accordance with table VI and the presence of any defect shall be cause for rejection of the entire lot. The lot size shall be the number of units in the inspected lot. Defects shall be as specified in 4.4.2.1 and 4.4.2.2.

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4.4.2.1 Defects in length. Defects in regard to length exist if any of the following are determined during inspection:

- (a) Length of unit less than or more than length specified (including permitted tolerances).
- (b) Length of unit less than marked on ticket.
- (c) Reels not continuous length.
- (d) Any piece on reels less than 600 feet in length for ropes with a circumference of 3/4 inch up to 16 inches.

4.4.2.2 Defects in winding. Defects with regard to winding exist if the following are determined during inspection:

- (a) Improperly or not firmly wound resulting in slippage during unwinding or otherwise affecting free unhampered unwinding of rope.
- (b) Knot or splice joining ends to make a continuous length.

4.5 Testing of end item. Testing of end item shall be as specified in table IX and 4.5.2 through 4.5.9. The physical and chemical values specified herein 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 VI, and the presence of any defect shall be cause for rejection of the entire lot. The lot size shall be expressed in units of reels. The sample unit for test purposes shall be 70 feet.

TABLE IX. End item testing.

Characteristics	Requirement	Test method	Number of determinations per individual sample unit
Circumference	3.5	4.5.2.1	3
Linear density	3.5	4.5.3	1
Breaking strength	3.5	4.5.4	2 (up to 9 - inch circumference) 1 (10 - inch circumference and above)
Elongation	3.5.1	4.5.5	2 (up to 9 - inch circumference) 1 (10 - inch circumference and above)
Extractable matter	3.6	4.5.6	2
Identification marker	3.8	4.5.7	1
Moisture content	3.7	4.5.8	2
Cover to core ratio	3.4	4.5.9	2

4.5.1 Specimen preparation. The designated length and number of test specimens shall be removed from the selected test reels in accordance with the specified test method.

4.5.1.1 Splicing. For each specimen; each end shall have a buried eye splice as recommended by the manufacturer.

4.5.2 Circumference and picks per inch.

4.5.2.1 Circumference. The circumference shall be measured in accordance with method 6003 of FED-STD-191. Results to be reported shall be the average of three determinations to the nearest 1/16 inch.

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4.5.2.2 Pick count. While under load P, ten complete picks shall be counted and marked off. The distance between the marks shall be measured to the nearest 1/16 inch. This procedure shall be repeated at least three times in different positions (not less than 1 foot of rope apart). The multiplier value specified in table II shall be calculated for the respective sizes by dividing 10 by the observed dimension and multiplying the result by the circumference.

4.5.3 Linear density. The linear density shall be determined in accordance with method 6004 of FED-STD-191. Tests to determine compliance with the requirements (including quantity of delivery) specified herein, may be conducted under prevailing atmospheric conditions. In case of dispute, the tests shall be conducted on material which has reached equilibrium under standard conditions specified in method 6015 of FED-STD-191.

4.5.3.1 Accuracy. Linear density results determined shall be in accordance with Table X:

TABLE X

Circumference (inches)	Degree of accuracy (pounds per 100 feet)
Less than 1 - 3/4	Nearest 0.01
2 to 6	Nearest 0.1
6 - 1/2 to 12	Nearest 1.0
More than 12	Nearest 10.0

4.5.3.2 Load. The load applied need not cause a rope failure provided all individual test values exceed the specified minimum breaking strength.

4.5.4 Breaking strength. Breaking strength determinations shall be conducted in accordance with method 6015 of FED-STD-191. Results shall be the average determination to an accuracy of 1 percent, but no single breaking strength test below the minimum values listed in table III shall be considered acceptable.

4.5.5 Elongation. The elongation at a minimum breaking strength shall be determined in accordance with the initial single loading procedure of method 6015 of FED-STD-191. The results shall be the average of determination to the nearest 0.1 percent.

4.5.6 Extractable matter. The extractable content shall be determined in accordance with ASTM D 2257, using a Soxhlet apparatus in the procedure. Results shall be the average of two determinations to the nearest 0.1 percent.

4.5.7 Identification marker. Three lengths of the identification marker shall be used to determine the fastness of printed matter of the identification marker to saltwater and mineral oil. Each length shall be approximately 1-1/2 feet. One length shall be retained as a control, one length shall be immersed for 2 hours in synthetic seawater conforming to ASTM D 1141, stock solution number 1, 2, or 3, and one length shall be soaked for 2 hours in mineral oil conforming to symbol 2190-TEP of MIL-L-17331. Following removal from the respective environments, the two exposed specimens shall be visually compared with the control specimen. The fastness of the printed matter shall be considered satisfactory when no perceptible change in color of legibility is observed.

4.5.8 Moisture content. The moisture content shall be determined in accordance with method 2600 of FED-STD-191. Results shall be the average of two determinations to the nearest 0.1 percent.

4.5.9 Determination of cover to core ratio. A two foot specimen shall be cut off, after which the cover shall be separated from the core. The cover and core shall be weighed separately and the percentage of each by weights shall be determined for compliance with 3.4. Results shall be the average of the two determinations to the nearest 0.1 percent.

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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 actual packaging of material is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity

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 rope covered by this specification is intended for general purpose use where high strength, low stretch, and good abrasion resistance are required.

6.2 Acquisition requirements. Acquisition documents must specify the following:

- (a) Title, number, and date of this specification.
- (b) Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.2.1 and 2.3).
- (c) Circumference size required (see 3.5).
- (d) When first article inspection is required (see 3.1).
- (e) When splicing tools are required.
- (f) When information on identification marker is other than specified (see 3.8).
- (g) Put up and length when other than specified (see 3.10).
- (h) When rope is furnished with knots or splices (see 3.10).
- (i) When multiple lengths per unit are not allowed (see 3.10).
- (j) Nominal continuous length of each unit.
- (k) Levels of preservation, packing, and marking required (see 5.1).
- (l) That purchaser will accept at original weight, any unit which has been shortened or cut for test specimens, if in complete compliance with this specification. Reel should be marked as to actual length.
- (m) That polyester rope will be purchased on a price-per-pound basis - net.
- (n) When marine finish is not required (see 3.3.1).

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6.3 Consideration of data requirements. The following data requirements should be considered when this specification is applied on a contract. The applicable Data Item Description (DID's) should be reviewed in conjunction with the specific acquisition to ensure that only essential data are requested/provided and that the DID's are tailored to reflect the requirements of the specific acquisition. To ensure correct contractual application of the data requirements, a Contract Data Requirements List (DD Form 1423) must be prepared to obtain the data, except where DoD FAR Supplement 27.475-1 exempts the requirement for a DD Form 1423.

<u>Reference Paragraph</u>	<u>DID Number</u>	<u>DID Title</u>	<u>Suggested Tailoring</u>
3.4.1, 3.10.1.3, 4.3.1, and appendix	DI - MISC - 80678	Certification / data report	10.3.1 applies
3.4.1 and 4.3	DI - T- 2072	Reports, Test	-----

The above DID's were those cleared as of the date of this specification. The current issue of DoD 5010.12-L, Acquisition Management Systems and Data Requirements Control List (AMSDL), must be researched to ensure that only current, cleared DID's are cited on the DD Form 1423.

6.4 First article. When first article inspection is required, the items should be a first article sample. The first article should consist of one unit. The contracting officer should include specific instructions in acquisition documents regarding arrangements for examinations, approval of first article test results and disposition of first articles. Invitations for bids should provide that the Government reserves the right to waive the requirement for samples for first article inspection to those bidders offering a product which has been previously acquired or tested by the government, and that bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract.

6.5 Adjustment for high moisture content. Material furnished containing an excess of moisture will be accepted by an adjustment in weight to the 5 percent moisture basis.

6.6 Subject term (key word) listing.

Braid
Fiber
Pick count
Put up
Splices
Yarns

Custodians:
Army - GL
Navy - SH
Air Force - 99

Preparing Activity:
DLA - IS

(Project Number 4020-0403)

Review Activities:
Navy - AS
Air Force - 82

MIL-DTL-24677B

APPENDIX

CERTIFICATION / DATA REPORT TECHNICAL CONTENT REQUIREMENTS

A SCOPE

A.1 Scope. This appendix covers information that shall be included in the certification / data report when specified in the contract or order. This appendix is mandatory only when data item description DI-MISC-80678 is cited on the DD Form 1423.

A.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix

A.3 CERTIFICATION

A.3.1 Certification content. The certificate of compliance shall include the following information:

- (a) Conformance of material characteristics to the requirements specified herein (see 3.3).
- (b) Conformance to the requirement for heat setting of yarns or finished rope (see 3.4)
- (c) Conformance to the requirement for the mixing of fiber types, fiber grades, or fiber of different manufacturers within the core or within the cover (see 3.4)
- (d) Number of braider splices used (see 3.10.1.3).
- (e) Certification prepared by the fiber contractor, for material and by the rope contractor attesting to the number of braider splices (see 4.4.1).
- (f) Certification attesting to the number of braider splices within the core after application of the cover.
- (g) Certification by the fiber contractor, that the yarns have been designated for cordage (see 3.4.1).
- (h) Certification that the yarns have been tested for its suitability for this application (see 3.4.1).

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.

I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER
MIL-DTL-24677B

2. DOCUMENT DATE (YYMMDD)
990125

ROPE, FIBROUS - DOUBLE-BRAIDED (POLYESTER)

4. NATURE OF CHANGE *(Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)*

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME *(Last, First, Middle Initial)*

b. ORGANIZATION

c. ADDRESS *(Include Zip Code)*

d. TELEPHONE *(Include Area Code)*
(1) Commercial
(2) AUTOVON
(if applicable)

7. DATE SUBMITTED
(YYMMDD)

8. PREPARING ACTIVITY

a. NAME
EMELIA ALTOMARI

b. TELEPHONE *Include Area Code)*
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