## MILITARY SPECIFICATION

ROPE, NYLON

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This specification is mandatory for use by all Departments and Agencies of the Department of Defenze.
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## 1. SCOPE

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1.1 Scope. This specification covers the requirements of nylon rope for general purpose use.
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2. APPLICABLE DOCUMENTS
2.1 ine following documents of the issue in effect on date of invitation for bids or request for proposal. form a part of the specification to the extent specified herein.

SPECIFICATIONS

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FEDERAL
            UU-T-81 - Tags, Shipping and Stock.
            CCC-T-191 - Textile Test Methods.
MILITARY
    MIL-C-3131 - Cordage, Preparation for Dalivery of.
    MIL-L-15016 - Lubricating Oil, General Purpose.
    MII-M-15926 - Marlinespike.
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STANDARD
MILITARY
MIL-STD-105 - Sampling Procedure and Tables for Inspection by Attributes.
(Copies of specifications, standards and drawings required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)
3. REQLIREMENTS
3.1 The.requirements specified in 3.11, 3.12, and 3.13 appiy only to rope purchased directly by the Government. All other requirements apply to rope purchased as a component for an end item by a contractor and to rope purchased directly by the Government.
3.2 standard sample. When a specified shade is specified, the rope shall maten the specified standard Ior shade and be equal to or better than the standard in respect to all characteristies for which the standard sample is referenced (see 6.3).
3.3 Materiale.
3.3.1 The rope shall be fabricated from bright white, virgin, continuous-filament. heat and light resistant nylon fiber of at least ix denier size, having at least 6.5 grama per denier strength. The nylon shall be a long chain polymar made of hexamethylene diamine and adipic acid, or a long chain polymer of epsilon amino caproic acid. Mixtures of nylon Eiber types thall not be employed in any one rope. Determination for these requirements shall be made.
3.4 Construction. The ropes shall be of three strands and conform to the requiremants specified herein. kich strand shall be made of one size of balanced three ply yarn and shall have equal numbers of yarns. The aingle yarns shall be made from grouped fliaments conforming to the sizes specified in table I for the respective sizes of rope. The direction of twist of the singles yarn shall be left-hand or "s" twist, and the minimum turns per foot shall conform to table I for the respective sizes of rope. The direction of the zope twist shall be right-hand or "Z" twist. Heat setting of the rope or any of its twisted componerts will not be permitted.

MLL-R-17343D
Table I - Construction

| Rope size (Circumference) | Turns per zoot minimum | Denier of single yarns |
| :---: | :---: | :---: |
| Inctres |  |  |
| 5/8 to 1-1/2, incl. | 22 | 2.500 to 8,000 |
| 1-3/4 to 2-1/2, incl. | 22 | 7,500 to 11,000 |
| $2-3 / 4$ to 3, incl. | 18 | 10,000 to 26,000 |
| 3-1/2 to 6-1/2, incl. | 15 | 15,000 to 26,000 |
| 7 to 12, incl. | 15 | 25,000 minimum |

3. 5 Physical requirements. The finishad rope shall conform to the physical propertie specified in table II, when rested as specified in 4.2.5.
rable II - Physical propertiea

| Clreumiterence at load "p" | Tolerance plus or minus | Approximate diameter | $\begin{aligned} & \text { Load "P" } \\ & 200 \times 0^{2} \end{aligned}$ | $\begin{aligned} & \text { Feet per } \\ & \text { load "p" } \\ & \text { min. } \end{aligned}$ |  | $\max$ | Breaking -trength (mininum) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Inches | Inches | Inches | Pounds | Feet | Pounde |  | Pounds |
| 5/8 | 1/16 | 3/16 | 7 | 100.0 | 2 | 25 | 950 |
| 3/4 | 1/16 | 1/4 | 12 | 66.0 | 2 | 25 | 1,500 |
| 1 | 2/26 | 5/16 | 20 | 36.0 | 3 | 25 | 2,600 |
| 1-1/8 | 1/16 | 3/8 | 28 | 28.5 | 5 | 25 | 3.300 |
| 1-1/4 | 1/16 | 7/16 | 38 | 20.0 | 5 | 25 | 4,800 |
| 1-1/2 | 1/26 | 1/2 | 50 | 16.5 | 5 | 25 | 5,800 |
| 1-3/4 | 1/16 | 9/16 | 65 | 12.5 | 5 | 25 | 7.600 |
| 2 | 1/16 | 5/8 | 80 | 9.7 | 5 | 25 | 9.800 |
| 2-1/4 | 1/16 | 3/4 | 110 | 7.2 | 5 | 25 | 13.200 |
| 2-1/2 | 1/26 | 13/16 | 230 | 6.2 | 5 | 25 | 15,300 |
| 2-3/4 | 1/16 | 7/8 | 275 | 5.0 | 5 | 25 | 19.000 |
| 3 | 1/8 | 1 | 200 | 4.1 | 20 | 100 | 23,200 |
| 3-1/2 | 1/8 | 1-1/8 | 250 | 3.0 | 20 | 100 | 32,000 |
| 3-3/4 | 1/8 | 1-1/4 | 310 | 2.6 | 20 | 100 | 36,500 |
| 4 | 3/16 | 1-5/16 | 245 | 2.3 | 20 | 100 | 41,300 |
| 4-1/2 | 3/26 | 1-1/2 | 450 | 1.8 | 20 | 100 | 50.000 |
| 5 | 3/16 | 1-5/8 | 530 | 1.5 | 20 | 100 | 60,000 |
| 5-1/2 | 3/16 | 1-3/4 | 610 | 1.25 | 20 | 100 | 72,000 |
| 6 | $3 / 16$ $3 / 16$ | 2 $2-1 / 8$ | 800 900 | 1.00 | 20 | 100 100 | 90,000 100,000 |
| $7^{6-1 / 2}$ | 3/16 | 2-1/8 | 900 2.000 | 0.90 0.71 | 20 20 | 100 100 | 100.000 127,000 |
| 7 | $1 / 4$ $5 / 16$ | $2-1 / 4$ $2-5 / 8$ | 2.000 1.400 | 0.71 0.55 | 20 20 | 100 100 | 127,000 164,000 |
| 9 | $3 / 8$ | 3 | 1.800 | 0.43 | 20 | 100 | 209.000 |
| 10 | 7/16 | 3-2/4 | 2.100 | 0.34 | 20 | 100 | 265.000 |
| 11 | 7/26 | 3-5/8 | 2.600 | 0.285 | 20 | 100 | 316.000 |
| 12 | 1/2 | 4 | 3. 200 | 0.24 | 20 | 100 | 375,000 |

3.5.1 Elongation. The angation of the ropes ahall not axceed 55 percant at the breaking point wen determined as specified in 4.2.5. The load iongation curve, drawn autographically, chall not axhibit evidence of changea in load applicationa greater than 5 percent of the load veighad at the instant of change. Changes dut to aplice slippage shal not be considered in this deteraination.
II when tested and thall not excend the maximum hardness after imersion whan tested an epecified in 1.2 .5 .

- 3.6 Finish. No extraneous material ahall be added for the purpose of veighting the rope. The oxeractable mater of the finished rope shall not exceed 4.0 percent when teste as specified in 4.2.5.
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3.7 Hest eqing. the heat aging test specified in 4.2 .5 shali be performed on gample roper when poseinle. An elterngte method using pliad yarns constituting the etrands may b substituted. The breaking strength loet shall not exceed the 10 percent when couparing thi exposed and the unexposed epecimens.
3.8 Moisture content. The modeture content of the rope ahall not exceed 5.0 percent when testeव a repentinin 4.2.5.
3.9 Spliceability. The finished ropes shall be spliceable and shall not develop yarn displacement or strand cockles in the aplicing test of 4.2.5.
3.10 Color. Unless otherwise specified (see 6.2), the color of the fisished rope shall be naturai. When colored rope is specified, dyeins of the ijiaments, yarns, or rope shall be as specified by the procuring activity (see 3.4 and 6.3).
3.10.1 Matching. The shade of the dyed and finished rope shall match the standard sample under natural (north sky) daylight or artificial daylight, having a color temperature of $7500^{\circ}$ Kelvin and shall be good approximation to the standard sample under incandescent lamplight at $2800^{\circ}$ Kelvin (see 6.3).
3.10.2 Coloriastness. The dyed and Einished rope shall show fastness to weathering equal to or better than the standard sample when tested as specified in 4.2.5. When no standard sample has been established, the dyed rope shail show good fastrass to weathering when tested as specified in 4.2.5.
3.11 Identification marker. The manufacturer shald identify his product by inserting a kraft paper or water repellent cotton marker within one strand in all ropes larger than 1-1/8 inches circumference. The marker shall be completely enveloped by the cover yarns in the strand in which inclosed. Unless otherwise specified (see 6.2), the manufacturer's name, year of manufacture, and type of fiber (Nyion) shall be cleariy printad on the marker. Italic of script type shail not be used. The printing shall not be affected upon exposure to water or mineral oil, when tested as specified in 4.2.5.
3.12 Identification. In addition to the requirements specified (ate 3.11), each package unit shall have ticket (identification tag) attached to it for identification purposes. The ticket shall conform to the requirements for type 8 , class 1 , aire 4 or 5 of purposes. The ticket shall conform to the requirements for type 8, elass 1 , site for 5 of minimun tearing resistance of both directions (total) of 850 grams. 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) Lengeh
(e) Contracr nunber and zate
(f) Date of manufaceure (month and year)
(g) Supplier's name
3.13 Put-up. Unless otherwise specified, the rope shall be furnished without knots or aplices on non-returnable reels (spools) not larger than 6 feet in diameter in the length apecified in table III. Broken longths will be permitted, but no piece shall be leas than 600 feet when measured in the relaxed condition. The ends of all rope shall be cut off squarely and be securely whipped, taped or heat sealed to prevent fraying or untwisting. The reels (spools) shall be wound so that each turn and layer is free from entanglement.
3.13.1 When specified, rope shali be put-up in coils in one continuous piece in the minimum length specified (see 6.2). The ends of all rope shall be cut off squarely and be securely whipped, taped or heat gealed to prevent untwisting or fraying of rope. The coils shall be so wound that each turn and layer is free from entanglemant.
3.14 Horkmanship. The rope shall conform to the quality and grade of product astablished by this apecification. The occurrence of defects shall not exceed the applicable acceptable quality levels established by this spacification.

## 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsiblity for inspection. Unless otherwise spectfied in the contract or purchase order, the gupplier is responsible for the performance of all inspection requirementi as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities suitable for the performance of the inspection requiremants specified herein, unless disapproved by the Government. The Govermment reserves the right to perform any of the inspections set forth in the specification where euch inspections are deemed necessary to assure supplies and servicea conform to prescribed requiremente.

Table III - Put-up

| Circunference | Minimum lengen | Approximate weight |
| :---: | :---: | :---: |
| Inches | Feet | Pounds |
| 5/8 | 2.250 | 23 |
| 3/4 | 2.250 | 35 |
| 1 | 2.250 | 64 |
| 1-2/8 | 1.620 | 59 |
| 1-1/4 | 1.200 | 61 |
| 1-1/2 | 1.200 | 75 |
| 1-3/4 | 1,200 | 99 |
| 2 | 1.200 | 227 |
| 2-1/4 | 1.200 | 172 |
| 2-1/2 | 1,200 | 203 |
| 2-3/4 | 1.200 | 248 |
| 3 | 1.200 | 303 |
| 3-1/2 | 1.200 | 416 |
| 3-3/4 | 600 | 240 |
| 4 | 600 | 272 |
| 4-1/2 | 600 | 349 |
| 5 | 600 | 422 |
| . 5-1/2 | 600 | 506 |
| 6 | 600 | 635 |
| 6-1/2 | 600 | 708 |
| 7 | 600 | 900 |
| 8 | 600 | 1,169 |
| 9 | 600 | 2,505 |
| 10 | 600 | 1,918 |
| 11 | 600 | 2,302 |
| 12 | 600 | 2,750 |

INot a specification requirement - included for informational purposes only.
4.2 Inspection for quallty conformance. Sampling and inspection shall be performed accordance witn Mİ-5TĨ-i首, execpt at othervise indicated.
4.2.1 Component and material inspection. Testing shall be conducted on components in accordance whth all requiremants of this specizication. Determinationa shall be made for all characteristics of table IV dxcept material. A certificate of compliance furniahed the rope eanufacturer by the fiber producer shall be considered acceptable for this characteristic.

Table IV - Component test

| Charactaristic | Paragraph reference |
| :---: | :---: |
| Matarial | 3.3 |
| Denier per filament | 3.3 |
| tenacity (grame per denjer) | $3.3$ |
| Denier (singles yarn) | $\begin{aligned} & 3.4 \\ & 3.4 \end{aligned}$ |
| Turns per foot (ainglea yarn) | $3.4$ |
| Difection of twist laingles yams) | 3.4 |
| salanced plled yazn (strand) | 3.4 |

4.2.2 Examination of the end for visued defccts. The dafects specified in table $V$ chall be counted regardies of biel proximity to each other, except where two or more defects represent a single local condition, in which cape only themore serios defect shall be counted. The sample unit for this examination shall be on reel, epool or coil, as applicable. Ten percent of the gross length contained on each satule unit, but not less than 100 feet thall be aubjected to the visual examination. The lot ilio for this examination shall be expressed in units of reels, spools or coils each. The acceptable quality level thall be 1.5 major defecte and 4.0 total defects (anjor and minor combined) per 100 units. The inspection level shall be Leved 1 .



IDarting yarns are internal yarns which project through the cover yarns of the strand at intervals along the rope.
2/At normal inspection distance (approximately 3 feet).
4.2.3 Examination for length and winding. The sample unit for this examination shall be one spool, reel, or coil. The inspection level shall be level $5-3$ and the acceptable quality level shall be 4.0 percent defective. For lots consisting of 500 or fewer units, the sample size shall be $10^{\circ}$ and the acceptance number 1 . The lot size shall be the number of units in the inspection lot. Defects shall be as specified in 4.2.3.1 and 4.2.3.2.
4.2.3.1 Defects with reyard to dength shall be considered to exist if any of the following are determined during inspection:
(a) Length of unit less than length specified (see 3.13).
(b) Length of unit less than marked on ticket.
(c) Rope not in a continuous length when coils are specified (see 3.13.1).
(d) Any piece on reels or spools less than 600 feet in length.
4.2.3.2 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 kinics, knots, entangling or slippage during unwinding or otherwise aftecting free unhampered unwinding or cope.
(b) knot, splice or otherwise joining of ends to make a continuous length.
4.2.4 Exanination of preparation for delivery regijrements. An examination shall be made to determine that packaging, packing, and mazkirg requirements of section 5 of this specification are complied with. The examination shail iv in accordance with the provisions of MIL-C-3131, except that the inspection level shall be 5-2 ano the acceptable quality level (AOL) shall be 2.5 defects per 100 units.
4.2.5 Testing of the end item. The methods of testing specified in CCC-T-122, wherever applicable añ as specified in table VII shall be followed. 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 appijcable test methods. The sample size and acceptance and rejection numbers shall be in accordance with table VI. The ample unit for testing shall be 85 feet of rope. The lot size shall be expressed in units of reels, pools or coils.

Table VI - Sampling for testa

| Number of reels spools or coils in lot | Number of Samples | Acceptance number for each test characteristic | Rejection number for each test chazacteristic |
| :---: | :---: | :---: | :---: |
| 1 to 2 | 1 | 0 | 1 |
| 3 to 15 | 2 | 0 | 1 |
| 16 to 40 | 3 | 0 | 1 |
| 41 to 110 | 5 | 0 | 1 |
| 111 to 300 | . 7 | 0 | 1 |
| 301 to 500 | 10 | 0 | 1 |
| 501 and over | 15 | 1 | 2 |

Table VII - Test methods. $\boldsymbol{I} /$

| Characteristic | Spec. ref. | Tent method | Na. of deter. per individ. unit of product | Results <br> reported as: |
| :---: | :---: | :---: | :---: | :---: |
| Plied yarnm per strand | 3.4 | visual | 1 | pass or fail |
| Direction of rope twist | 3.4 | 4050 | 1 | Pass or fall |
| Circumference | 3.5 | 4.2.5.1 | 3 | Average or 3 deter. to nearest $1 / 16$ inch |
| Length per pound | 3.5 | 4.2.5.2 | 1 | Reported to nearest 0.1 ft . for ropes 5 inches or less in circunierence and to the nearest 0.01 tt. for ropes over 5 in. in circumFerence. |
| Breaking strength Initial | 3.5 | 4.2.5.3 | 3 | Aver. of 3 deter. to nearest 10 ibs. |
| After heat aging | 3.7 | 4.2.5.3 | 3 | Aver. of 3 deter. to nearest 10 lbs. calculated to nearest 0.1 percent |
| Alternate 3-ply yarn method |  |  |  |  |
| Control | 3.7 | 4.2.5.3.2.2 | 9 | Aver. of 9 deter. to nearest 1 1b. |
| After heat aging | 3.7 | 4.2.5.3.2.2 | 9 | Rvar. of 9 deter. to naarest 1 lb. cal culated nearest 0.1 percent. |
| Elongation | 3.5.1 | 4.2 .5 .4 | 3 | Aver. of 3 deter. to nearest 0.1 percent |
| Hardness Initial | 3.5.2 | 4.2.5.5.2 | 3 | Aver. of 3 deter. to nearest 1.0 lb . |
| After dmancion | 3.5,2 | 4.2.5.5.2 | 3 | Avarage of 3 deter. to nearest 1.0 1b. |
| Extractable matter | 3.6 | 4.2.5.6 | 2 | Average of 2 deter. to nearest 0.1 percent |
| Moisture content | 3.8 3.8 | $\begin{array}{r} 2600 \\ 4.2 .5 .7 \end{array}$ |  |  |
| Spliceability | 3.9 | $4.2 .5 .7$ | 1 | Pass or fail |
| Colorfastnexs <br> To weathering <br> Identification marker | 3.10 .2 | $4671.3 /$ | 1 | Pass or fail |
| Material | $3.21$ | 2/2.5.8 |  |  |
| Fastnese to oil and vater | $3.11$ | 4.2.5.8 | 2 | pass or sail |
| Identification tickot Material | 3.12 | $2 /$ |  |  |

IT Tests to determine compliance with specification requirements including quantity of deliv may be under prevailing atmospheric conditions except in settloment of dispute in which case the tests shall be made upon material which has reached equilibrium under standard conditions as specified in CCC-T-191.
2/Test reports showing conformance to this specification shall be available for each lot of rope. Reports shall contain actual test, examination or other verisiable quality da.
3/The time of exposure shall be 40 standard fading hours.
4.2.5.2 Determination of circumference. The circumference shall be meanured at the beginning of the breaking strength test with the specimen under the load "p" spectifed in table II. A hard fiber shall be passed snugly around the rope and cut where it overlaps. The cut jength shall be straightened and measured to the nearest $1 / 16$ inch. This determination shall be repeated at least three times in difgerent positions not leas than two turns of rope apart. The average of these determinations shall be the circumference of the rope.
4.2.5.2 Determination of langen per pound. A minimum of 20 feet of ropa shall be measured to nearest $1 / 4$ inch and weighed to within plus or minus 0.5 percent of ite total weight. The feet per pound shall be calculated using the following equation:

Feet per pound $=\frac{L \times(1+e / 100)}{W}$
Where:
L = Measured length of specimen (feet)
W : Measured weight of specimen (pounds)
e - Percent longation at load $P$ (see table II, determined as apecified in 4.2.5.41

### 4.2.5.3 Determination of breaking strength.

4.2.5.3.1 Initial. The breaking strength shall be determined in accordance with method 4106 of CCC-T-19i except as modified herein. Lengths for the breaking strength shall be taken from each sample and spiliced at each end with at least four full tucks. Should aplice slippage be noted during the test, six full tucks shail be used in each iplice. The inside length of each eye, measured with the sides of the eye in contact shall be not lass than 12 inches. The length between the inner ends of the splices shall be between 3 and 5 feet. Clamps or capstan arrangements may be used in lieu of splices but in case of dispute. spliced specimens shall be used.
4.2.5.3.2 Heat aging. The test specimens shall be heated in a convection air oven for 5 days at a temperature of $175^{\circ} \pm 2^{\circ}$ F. Upon removal from the oven, the specimens shall be allowed to reach equilibrium under the standard condition specified in Section 4 of CCC-T-191 before being tested for breaking strength.
4.2.5.3.2.1 Spliced ropes. Three test specimens prepared as specified in 4.2.5.3.1 shall be subjected to the test specified in 6.2.5.3.2. The breaking strength test shall be conducted as specified in 4.2.5.3.1. The percent onange in strength shall be caicuiated based on the avarage initial strength and after heat aging.
4.2.5.3.2.2 Alternate method using plied yarns. Select from each strand of the test sample unit one $3-p l y$ yarn, whose length shal be not less than 48 inches. Heat seal the ends of each selected yarn to insure against the loss of twist and remove from the strand. After folding in two equal lengths, each yarn shall be halved by heat sealing at the midpoint. These respective lengths shall then be separated into two sets each consisting of 9 yarns. One set shall be employed as a control, while the other shall be subjected to the test specified in 4.2.5.3.2. The breaking strength for each set shall be determined in accordance with method 4102 of CCC-T-191 except the elongation shall not be required. The percent change shall be based on the average strength of the control set and the heat aged set.
4.2.5.4 Determination of elongation. A 20 inch gage, minimum, shall be marked off on the tensile specimen in the spliced ralaxed condition. The specimen shall be rensioned to the ioad " $P^{\prime}$ specified in table II for the respective size rope. The elongation under this tension shall be measured for each breaking strangth specimen averaged to the nearest 0.1 percent and recorded as the value "e" for use in detemining length per pound (see 4.2.5.2). The elongation at the breaking point shall be determined and calculazed to percent as apecified in method 4106 of CCC-T-191.

### 4.2.5.5 Hardness.

4.2.5.5.1 Initital. The length of rope used for the weight detemination shall be securely taped off at each end. A 14 inch marlinespike, equivalent or conforming to type I of MIL-M-i5926, shall be inserted between strands until visible on the opposite side. The spike shall be inserted at least 5 feet from a cut end or 5 feet from an area which has been subjected to a previous hardness test. The spike inserted in the rope shall be placed in a compression testing machine in such a manner that the force necessary to push the spike through the rope will be measured with the rope in a relaxed state without tension and completely free to absorb the force of the penetrating spike. Rate of loading shall be 6 inchs +1 inch per minute. The load necessary to force the spike to the $1 / 2$ inch diameter mark shall be measured on ropes up to $2-3 / 4$ inch circumference inclusive. The 1 inch diameter mark shall be used for larger size ropes.
4.2.5.5.2 ifter soaking. A specimen $n=$ zonc : minirw s in feet in length tapec


4.2.5.6 Extractable mater. The extractaio mater shall be detemined using the c.horoform extraction prccedur? of metnod 2611 of cci-r-131.
4.2.5.7 Determanation of spliceabillty. A breaking strencti specimen shall be ore~ pared and spliced at asch enc with four full tucks. Tre specimen snai: then be aliowiec to Eest 24 hours. Three of the tucks shall then be sacked out of the rope. The poztions of the rope from which the tucks are removed shall be examined for yarn displacement and strand cockles.
4.2.5.8 Determination of fastress of printea matter of the identification marker to salc water and mineral oil. Three lengths of the marker approximately 1-1/k feet each, one of which will beretained as a control, will be employed in this determinarion. Immerse ore length for two hours in synthetis sea water, camposed of 3.0 percent sodium chloride and 0.5 percent annydrous magnesium chloride, whice tise remaining length shall be soaked for 2 hours in mineral oil, conforming to Military Symbol 3050 of MIL-L-15016. The fastress of the printed matter shall be considered satisfactory when no perceptible change in coior or in legibility is noted during a visual comparison of the exposed specimens with the control specimen following removal from the respective environments.

## 5. PREPARATION FOR DELIVERY

The preparation for delivery requirements specified herein apply only for direct Government procurements. For the extent of applicability of the preparation for delivery requirements or referenced documents listed in section 2. see 6.5.)
5.1 Packaging, packing, and marking anall be as apecified in MIL-C-3131. The level of protection ahali be $A, B$, or $C$ as specified in the contract or order (see 6.2).

## 6. NOTES

6.1 Intended use. The rope covered by thil apecification is intended for general purpose uef where high strength or stretch is required as in mooring towing and hoisting operations.
6.2 Ordering data. Procurement documents stould specify the following:
(a) Title, nunber, and date of this specification.
(b) Specific color (shade) if other than natural (see 3.10).
(c) Wen information on identification marker is other than pecified (see 3.21),
(d) Put-up requized (see 3.13).
(e) Selection of applicable levels of preservation, packaging and packing lsee 5.1).
(f) Whether test apparatus is other than apecified (see table VII).
(g) That purchaser will accept at original weight, any unit which has been shortened or cut for test specimens, if in compliance with this specification (see 6.4).
(h) That nylon rope shall be purchased on a price-per-pound basis-net weight.
6.3 Standard gample (Department of Army only). Sor access to atandard saples, and rope dyeing instructions address the procuring office issuing the invitation for bids. Procuring offices should note requirements of 3.4 where the pronibition againgt heat setting of rope may require waiver when color is required other than natural.
6.4 Adjustaent for high moisture content. Material furnished containing an excess of moisture will be accepted by an adjustment in weight to the 5 parcent moisture basis.
6.5 Sub-contracted material and parts. The preparation for delivery requirementa of reterenced documents listed in section $\frac{2}{}$ do not apply when material and parts are procured by the supplier for incorporation into the equipunt and lase thedr separate identity when the equipment is shipped.
6.6 CHANGES FROM PREVIOUS ISSUE. THE OUTSIDE MARGINS OF THIS DOCUMENS HAVE BEEN MAREXD -1" TO INDICATE WHERE CHANGES (DELETIONS, ADDITIONS, ETC.) PROM THE PREVIOUS ISSUE HAVE BEEN MADE. THIS HAS GEEN 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 REOUIREMENTS OF THIS DOCUMENT BASED ON THE ENTIRE CONTENT AS WRITTEN IRRESPECtive of the marginal notations and relationship to the last previous issue.

```
Custodians: Preparing activity:
    Army - GI
    Navy - 8H
    Airy force - 82
Review activities:
    Asmy - GL
    Navy - SH, YD
    Aly Force - 82, 85
    DSA - IS
User activities:
    Acry - MI, MU
    NavY - MC, OS, CG
```


## STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL <br> (See Instructions - Revarix Slide)


4. Hecommended Wording:
c. Mamen/Marionale for neconmmendetion:
8. nimante

| - ME OF BUBMITTEM (IEAC Fint, Mil - Optionel | b. WORK TELEPFHONI NUMAEA (Inatuch ANO COde) - Optional |
| :---: | :---: |
|  | 2. DATE OP SUEMIESION (YYMMDD) |

