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INCH-POUND

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COMMERCIAL ITEM DESCRIPTION

ROPE, KERNMANTLE

This commercial item description is approved for use by the Defense Supply Center, Philadelphia and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE. This commercial item description covers the requirements for kernmantle rope which is used as accessory cord, for rock/ice climbing, rope installations, and moving on a glacier.

2. CLASSIFICATION. The rope will be furnished in the following types, classes and sizes:

2.1 Types.

Type I – Accessory cord
Type II – Climbing rope, dynamic, half
Type III – Climbing rope, dynamic, single
Type IV – Installation rope, static

2.1.1 Classes. The classes are specified in Table I and Table II.

2.2 Sizing. The kernmantle ropes will be furnished in the classes specified in Table I and Table II. The rope will be as light-weight as possible, while meeting the standards in the description.

Comments, suggestions, or questions on this document should be addressed to: Defense Supply Center Philadelphia, Clothing and Textiles Directorate, Attn: DSCP Standardization Team, 700 Robbins Avenue, Philadelphia, PA 19111-5096. Since contact information can change, you may want to verify the currency of this address information using Acquisition Streamlining and Standardization Information System (ASSIST) online database at http://assist.daps.dla.mil/ .

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3. SALIENT CHARACTERISTICS. The kernmantle rope shall be constructed with a nylon or polyester core (kern) and a braided outer nylon or polyester sheath (mantle). With the exception of Type I, all ropes shall be free of knots, splices, or braider splices. Type I ropes may consist of a maximum of two lengths, with the lengths marked on the spool per industry standard for accessory cord. With the exception of Type I, all nylon sheath ropes will be manufactured with a dry treatment process for sheath and kern. The rope design shall provide ease of use with typical combat gloves while meeting the standards in the description.

TABLE I. Physical characteristics for ropes rated by tensile strength

Type	Class	Rope Diameter, mm	Length, ±2m	Minimum Tensile Strength, kN	Rope, grams/m ±10%	Color
I	1	4	200	3.2	10	Black (all)
I	2	6	200	7.2	23.8	Brown 356
I	3	7	200	9.8	30	Tan 380
I	4	8	200	12.8	42	Gray 26270
IV	1	10	200	27	68	Black (all)

TABLE II. Physical characteristics for ropes rated by impact force

Type	Class	Rope Diameter, mm	Length, ±2m	Falls Held	Impact Force, kN	Rope, grams/m ±10%	Color
II	1	9	60	12	6.3	53	Twill Pattern - Tan 380 with Green 483 tracer
III	1	10	60	8	9.5	65	Digital Camouflage Pattern - 45% Green 483 - 22.5% Tan 380 - 22.5% Gray 26270 - 10% White
III	2	10	200	8	9.5	65	Digital Camouflage Pattern - 45% Green 483 - 22.5% Tan 380 - 22.5% Gray 26270 - 10% White

3.1 Color. The ropes shall provide low contrast with typical use terrain and be a good match to the colors as listed by classes in Table I and Table II.

3.1.1 Type III. At the halfway point of the rope, the pattern shall change to ease identification of the middle of the rope (Class 1 only).

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3.2 End item testing

3.2.1 Type I. The rope shall meet INTERNATIONAL MOUNTAINEERING AND CLIMBING FEDERATION (Union Internationale des Associations d'Alpinisme) - UIAA Standard 102 or EN 564.

3.2.2 Type II and Type III. The rope shall meet INTERNATIONAL MOUNTAINEERING AND CLIMBING FEDERATION (Union Internationale des Associations d'Alpinisme) -UIAA Standard 101 or EN 892 for half ropes and single ropes respectively.

3.2.3 Type IV. The rope shall meet INTERNATIONAL MOUNTAINEERING AND CLIMBING FEDERATION (Union Internationale des Associations d'Alpinisme) - UIAA Standard 107 or EN 1891.

3.3 Workmanship. The finished rope shall conform to the quality of product established by this document. The occurrence of defects shall not exceed the contractors own quality assurance standards and the quality assurance standards defined in the technical data in the solicitation and/or contract.

3.4 Service life. The rope shall have no unexpected material or component failures during a continuous one-year cycle. The rope shall have no unexpected material or component failures during periodic use over a five year period.

3.5 Labels/barcoding/instruction slip. If applicable, all labeling, barcoding and instruction slip requirements shall be as specified in the solicitation or contract (see 7.2).

4. REGULATORY REQUIREMENTS. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

4.1 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible, provided that the material meets or exceeds the operational and maintenance requirements and promotes economically advantageous life cycle costs.

5. PRODUCT CONFORMANCE PROVISIONS.

5.1 Product conformance. The products provided shall meet the salient characteristics of this Commercial Item Description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial marketplace. The Government reserves the right to require proof of such conformance.

5.2 Visual examination. Each rope, kernmantle shall be examined for the following defects as listed in Table III.

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TABLE III. End item examination

Examine	Defect Description
Finish	Not smooth and adherent Does not provide low contrast with typical use terrain
Construction	Any component loose, missing or not specified type
	Any component fractured, slit, punctured, dented, bowed, malformed or damaged
Ends	Not sealed
	Frayed
Labels/barcoding/instruction slip (if applicable)	Incorrect, illegible, omitted or misplaced.
Marking	Incorrect, illegible, omitted or misplaced
Core	Visible through mantle
Color	Not as specified
Size	Not as specified
Certification	Not IAW UIAA/CE

5.3 Acceptance criteria. Acceptance criteria shall be as specified in the contract or purchase order (see 7.2).

6. PACKAGING.

6.1 Preservation, packing and marking.

6.1.1 Type I. The rope shall be tightly wound on a wooden spool not to exceed 10.5 inches in diameter and 12.5 inches in width.

6.1.2 Type II and III. Each length of rope shall be coiled, flattened and tied into hanks not exceeding 24 inches in length. Each coiled length of rope shall then be unit packed in a snug fitting sealed polyethylene bag with a wall thickness that exceeds 0.003 inches. The rope shall be packed so that it can be easily uncoiled for initial use.

6.1.3 Type IV. Tightly wound on a wooden spool not to exceed 12.5 inches in diameter and 14.5 inches in width.

6.2 The preservation, packing and marking shall be further specified in the contract or order (see 7.2).

7. NOTES.

7.1 Sources of documents.

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7.1.1 Government Documents. Copies of Government documents are available online at http://assist.daps.dla.mil/quicksearch/ or from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

7.1.2 Federal Acquisition Regulations are available online at http://acquisition.gov/far/index.html or by contacting the Superintendent of Documents at 202-512-1800.

7.1.3 Non-Government Documents. Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents may be available in or through libraries or other informational services.

EUROPEAN STANDARD (EN)

EN 564: Mountaineering Equipment – Accessory Cord – Safety Requirements and Test Methods
EN 892: Mountaineering Equipment – Dynamic Ropes – Safety Requirements and Test Methods
EN 1891: Personal Protective Equipment for the Prevention of Falls from a Height – Low Stretch Ropes

(Copies are available online at www.bsi-global.com or from BSI British Standards, Customer Services 389 Chiswick High Road London W4 4AL United Kingdom)

INTERNATIONAL MOUNTAINEERING AND CLIMBING FEDERATION
UNION INTERNATIONALE DES ASSOCIATIONS D'ALPINISME (UIAA)

UIAA Safety Standard 101 Mountaineering and Climbing Equipment, Dynamic Ropes
UIAA Safety Standard 102 Mountaineering and Climbing Equipment, Accessory Cord
UIAA Safety Standard 107 Mountaineering and Climbing Equipment, Low Stretch Ropes

(Copies are available online at www.theuiaa.org or from the Union Internationale Des Associations D'Alpinisme (UIAA) Monbijoustrasse 61 Postfach CH-3000 Bern 23 Switzerland)

7.2 Ordering data. The contract or order should specify the following:

a. Title, number, and date of this Commercial Item Description.
b. Type, size and color required (see 2.1).
c. When required, labeling, barcoding, and instruction slip (see 3.5)
d. Acceptance criteria (see 5.3).
e. Packaging (see 6.1).

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MILITARY INTERESTS:

CIVIL AGENCY COORDINATION ACTIVITY:
GSA – FSS

Custodian:
Army - GL
Marine Corps – MC

PREPARING ACTIVITY:
DLA-CT

Project Number: 4020-2009-007

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