

INCH-POUND

A-A-50139D

17 August 2010

SUPERSEDING

A-A-50139C

25 February 2004

## COMMERCIAL ITEM DESCRIPTION

## ROPE, KERNMANTLE

The General Services Administration has authorized the use of this Commercial Item Description for all Federal Agencies.

1. SCOPE. This commercial item description covers nylon kernmantle rope that is intended to provide security for men or equipment in operation involving steep ascents and is also intended to be used for hauling equipment.

2. CLASSIFICATION. The kernmantle ropes shall conform to the following types:

- Type I - 7 mm ØD X 150 ± 6 feet (ft) long, uninterrupted length, kernmantle accessory cord, in accordance with EN564
- Type II - 8 mm ØD X 150 ± 6 ft long, uninterrupted length, kernmantle accessory cord, in accordance with EN564
- Type III - 9 mm ØD X 150 ± 6 ft long, uninterrupted length, kernmantle dynamic half rope, in accordance with EN892
- Type IV - 11 mm ØD X 165 ± 7 ft long, uninterrupted length, kernmantle dynamic single rope, in accordance with EN892; water repellent treated
- Type V - 11 mm ØD X 250 ± 10 ft long, uninterrupted length, kernmantle dynamic single rope, in accordance with EN892; water repellent treated
- Type VI - 11 mm ØD X 150 ± 6 ft long, uninterrupted length, kernmantle static type A rope, in accordance with EN1891
- Type VII - 5 mm ØD X 82 ± 6 ft long, uninterrupted length, kernmantle static rope, minimum breaking strength 3000 lbs, tested per Cordage Institute CI 1500

Comments, suggestions, or questions on this document should be addressed to Defense Supply Center Philadelphia (DSCP), ATTN: DSCP-NASA, 700 Robbins Avenue, Philadelphia, PA 19111-5096 or e-mail to [dscpg&inspeccomments@dla.mil](mailto:dscpg&inspeccomments@dla.mil). Since contact information can change, you may want to verify the currency of this address information using ASSIST Online database at <https://assist.daps.dla.mil>.

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### 3. SALIENT CHARACTERISTICS.

3.1 Design and construction. With the exception of type VII using an aramid fiber core (kern), all other types (see section 2) kernmantle ropes shall be constructed with a nylon core (kern) and a braided outer nylon or polyester sheath (mantle). All ends of the kernmantle ropes shall be cut with a hot knife and taped to prevent fraying. Unless otherwise specified, the mantle color for type I thru type V shall be green; color for type VI shall be black and color for type VII shall be blue.

3.2 Physical properties. The finish rope shall conform to the specified type and tests per standard as specified in classification (see section 2).

3.3 Dynamic water absorption (Type IV and V only). Type IV and V kernmantle ropes shall be water repellent treated to resist water penetration into the rope. When tested per paragraph 5.3, the maximum average dynamic absorption shall be 26.5 percent.

3.4 Identification. Each kernmantle rope shall have a ticket (identification tag) attached for identification purposes. The ticket shall conform to the requirements for A-A-59622. The ticket shall be legibly printed, strapped, or typed with water insoluble ink. The ticket shall contain the following information:

- National Stock Number
- Nomenclature
- Document number
- Type
- Contract number and date
- Name of manufacturer
- Date of manufacture and year

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).

### 5. PRODUCT CONFORMANCE.

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 market. The government reserves the right to require proof of such conformance.

5.2 End item visual examination. Each lot of kernmantle ropes shall be examined for the following defects:

- a. Defects in design, construction, or workmanship.
- b. Any cut, chafe, damage or splice.
- c. Kink, darting yarn, knot, broken or loose end, bulged strand.
- d. Color not as specified.
- e. Spotty or uneven dyeing.
- f. Any spot or stain clearly noticeable.
- g. Identification omitted, incorrect, or not as specified.

5.3 Rope dynamic adsorption test (for type IV and V only). Type IV and V ropes shall be tested for dynamic water absorption in accordance with test method 4500 of FED-STD-191, with the following changes to the method:

- a. An electric hot knife rope cutter shall be used to cut the specimens and seal the rope to prevent unraveling of the ends.

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- b. In lieu of using a wringer, at the end of the required running time, one specimen shall be grasped at one end and the opposite end tapped downward against a solid object four times. The specimen shall be turned 180°, grasped at the opposite end, and similarly tapped four times at the point previously held. The tapping procedure shall be repeated one additional cycle for each end.

6. PACKAGING. Preservation, packing, and marking shall be as specified in the contract or order.

7. NOTES.

7.1 Source of documents.

7.1.1 Cordage Institute International Standards. Cordage Institute (CI) standards are available from the Cordage Institute, 994 Old Eagle Rd., Suite 1019, Wayne, PA 19087-1866 or online at <http://www.ropecord.com>.

7.1.2 EN standards. An English version of the EN standards are available from British Standards Institution (BSI), BSI Customer Services c/o Cash Office, PO Box 16206, London W4 4ZL.

7.1.3 FAR. The Federal Acquisition Regulation is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 or online at <http://www.arnet.gov/far>.

7.1.4 Government documents. Federal and military documents are available online at <https://assist.daps.dla.mil/quicksearch/> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.

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

- a. Title, number, and date of this document.
- b. Type required (see section 2).
- c. Packaging requirements (see section 6).

7.3 Key words.

Hauling  
Kern  
Mantle  
Rescue  
Sheath  
Speleology

6.5 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

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Military interests:

Custodians:

Army – GL

Navy – AS

Preparing activity:

DLA - IS

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