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INCH-POUND

A-A-59615
1 July 2004
SUPERSEDING
MIL-C-915/5D
29 September 1989

COMMERCIAL ITEM DESCRIPTION

CABLE, SPECIALTY COMMUNICATIONS

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

1. SCOPE.

1.1 Scope. This Commercial Item Description covers a cable for communication and telephone service that is flexible and watertight. It consists of four conductors, AWG size 18, and is rated at 600 volts. This cable is intended for shipboard use as a diver's lifeline and telephone where submersion and weather are the major application factors.

2. SALIENT CHARACTERISTICS.

2.1 Product certification. This product shall be certified by a nationally recognized testing laboratory (NRTL) accredited for testing cable by the Occupational Safety and Health Administration (OSHA), U.S. Department of Labor for compliance with Underwriters Laboratories (UL), Inc. Standard for *Electrical Wires, Cables, and Flexible Cords*, UL 1581 and the requirements specified herein.

2.2 Materials. Materials shall be as specified herein.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data that may improve this document should be sent to: Commander, Naval Sea Systems Command, ATTN: SEA 05Q, 1333 Isaac Hull Avenue, SE, Stop 5160, Washington Navy Yard DC 20376-5160 or emailed to commandstandards@navsea.navy.mil, with the subject line "Document Comment". Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at www.dodssp.daps.mil.

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2.3 Physical requirements.

2.3.1 Conductor. Each conductor shall be 18 AWG stranded, Class M, per ASTM B174 and tin-coated copper per ASTM B33, with a separator.

2.3.1.1 Insulation. The insulation shall be a type of synthetic rubber per NEMA WC 70, with a 0.031-inch minimum wall thickness.

2.3.1.2 Identification. The color code shall be per ICEA Method 1.

2.3.2 Assembly. The cable shall be assembled around an insulated steel core member with 7-by-19 stranding, using rubber fillers to maintain roundness, then covered with a synthetic rubber reinforced insulating belt having a 0.031-inch minimum wall thickness.

2.3.3 Jacket. The overall cable jacket shall be black hypalon with a 0.078-inch minimum wall thickness to create a maximum cable OD of 0.71 inch.

2.4 Performance requirements.

2.4.1 Conductor. The conductor resistance shall not exceed 7.15 ohms per 1000 feet at 25 ^{o}C.

2.4.2 Conductor insulation. The conductor to conductor insulation shall have a minimum resistance of 200 megohms per 1000 feet and a minimum voltage withstand of 2000 VAC.

2.4.3 Strength member. The strength member to water insulation shall have a minimum resistance of 100 megohms per 1000 feet and a minimum voltage withstand of 2000 VAC.

2.4.4 Insulating belt. The insulating belt shall be removable from the conductors and the conductors shall be separable without damage to the insulation and without destroying the identity of the color code.

2.4.5 Bend radius. The bend radius of the cable shall be at least 6 inches.

3. REGULATORY REQUIREMENTS.

3.1 Recovered materials. 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. PRODUCT CONFORMANCE PROVISIONS.

4.1 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

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

4.2 Metric products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, provided they fall within specified tolerances using conversion tables contained in the latest revision of FED-STD-376 and all other requirements of this Commercial Item Description are met. If a product is manufactured to metric dimensions and those dimensions exceed the tolerances specified in the inch-pound units, a request shall be made to the contracting officer to determine if the product is acceptable. The contracting officer has the option of accepting or rejecting the product.

5. PACKAGING.

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

6. NOTES.

6.1 Ordering data. Purchaser shall specify the following:

(a) Title, number and date of this commercial item description.
(b) Amount, footage required (continuous length).

6.2 Source of documents.

6.2.1 FED-STD-376 is available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4/D, Philadelphia, PA 19111-5094, http://assist.daps.dla.mil/quicksearch/ or www.dodssp.daps.mil.

6.2.2 NEMA Standard WC 70 is available from National Electrical Manufacturers Association, 1300 North 17th Street, Suite 1847, Rosslyn, VA 22209, or www.nema.org.

6.2.3 UL Standard 1581 is available from Underwriters Laboratories, Inc., 12 Laboratory Drive, Research Triangle Park, NC 27709-3995, or www.ul.com.

6.2.4 ASTM B33 and B174 are available from ASTM International, 100 Barr Harbor Dr., West Conshohocken, PA 19428, or www.astm.org.

6.2.5 ICEA Method 1 is available from Global Engineering Documents, 15 Inverness Way East, Englewood, CO, 80112, or http://www.icea.net.

6.3 Potential sources. Based on information available at the time this document was developed, the following companies manufacture products that are believed to comply with the salient characteristics of this Commercial Item Description.

Manufacturers

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BICC Brand-Rex
1600 West Main Street
Willimantic, CT 06226-1128

BIW Cable Systems, Inc.
22 Joseph E. Warner Blvd.
No. Dighton, MA 02764

The Okonite Company
P.O. Box 340
Ramsey, NJ 07446

6.3 Key words.

Cable
Communications
Specialty
Four Conductor
18 AWG
600 Volts
Watertight
Shipboard Use

MILITARY INTERESTS:

Custodians:
Army - MI
Navy - SH

Review activities:
Army - CR
Navy - CG, EC
DLA – CC, IS

CIVIL AGENCY COORDINATING ACTIVITY:
GSA-FSS

Preparing activity:
Navy - SH
(Project 6145-2319-006)