

INCH-POUND

A-A-59610

02 June 2004

SUPERSEDING

MIL-C-915/61D

29 September 1989

## COMMERCIAL ITEM DESCRIPTION

## CABLE, COMMUNICATIONS, SPECIAL PURPOSE

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 flexible, single conductor, rated at 600 volts. This cable is intended for shipboard use in areas suitable for watertight applications.

## 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.

2.3 Physical requirements.

2.3.1 Conductor. The conductor shall be 18 AWG stranded, per ASTM B286 and tin-coated copper per ASTM B33.

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](mailto: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](http://www.dodssp.daps.mil).

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2.3.2 Insulation. The insulation shall be a type of synthetic rubber per NEMA WC 70 or cross-linked polyethylene per NEMA WC 7, with a 0.060-inch maximum wall thickness.

2.3.3 Assembly. The cable shall be insulated with cross-linked polyethylene or synthetic rubber having a 0.055-inch wall thickness. The cable shall be covered with an overall braided shield (individual ends of 34 AWG tin coated copper, 16 carriers and 6 ends). The shield shall provide a minimum of 88 percent coverage and shall be insulated with a synthetic tape.

2.3.4 Jacket. The cable shall be jacketed with black hypalon having a wall thickness of 0.033 inch with a nylon reinforcing braid (210 nylon 12 carrier, 2 ends, and 3 picks) and arctic polyvinyl chloride with a 0.030-inch wall thickness. The maximum cable OD is 0.500 inch.

#### 2.4 Performance requirements.

2.4.1 Conductor. The conductor resistance shall not exceed 7.05 ohms per 1000 feet at 25 °C.

2.4.2 Conductor insulation. The conductor to shield insulation shall have a minimum resistance of 500 megohms per 1000 feet and a minimum voltage withstand of 1500 VAC.

2.4.3 Bend radius. The bend radius of the cable shall be at least 3.0 inches.

2.4.4 Shielding. The shielding shall be removable from the conductor without damage to the insulation or conductor.

### 3. REGULATORY REQUIREMENTS.

3.1 Recovered materials. The offeror/contractor is encouraged to use recovered materials to the maximum extent possible, 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 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.

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## 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, or <http://assist.daps.dla.mil/quicksearch/> or [www.dodssp.daps.mil](http://www.dodssp.daps.mil).

6.2.2 NEMA Standards WC 7 and WC 70 are available from National Electrical Manufacturers Association, 1300 North 17<sup>th</sup> Street, Suite 1847, Rosslyn, VA 22209, or [www.nema.org](http://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](http://www.ul.com).

6.2.4 ASTM B33 and B286 are available from ASTM International, 100 Barr Harbor Dr., West Conshohocken, PA 19428, or [www.astm.org](http://www.astm.org).

6.3 National stock numbers (NSNs). The following is a list of NSNs assigned that correspond to this CID. The list may not be indicative of all possible NSNs associated with the CID.

6145-00-155-3526

6.4 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

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

BIW Cable Systems, Inc.  
22 Joseph E. Warner Blvd.

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No. Dighton, MA 02764

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

6.5 Key words.

Cable  
Communications  
Special Purpose  
Single 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 6145-2319-009)