



P No.	Conductors			Primary Insulation		Max Capacitance Ft		"X" Dia Max	Lay Lg Max	Rev Status Ltr
	Size (AWG)	No. of	Stranding	Color	Dia	Grounded (PF)	Mutual (PF)			
1	26	1	7/34	White	.043 .035	51	-	.077	-	F
2	26	2	7/34	1-White 1-Black	.043 .035	38	22	.116	1.25	F
3	26	3	7/34	1-White 1-Black 1-Red	.043 .035	38	22	.124	1.25	F
4	26	4	7/34	1-White 1-Black 1-Red 1-Green	.043 .035	38	22	.136	1.50	F
5	22	2	19/34	1-White 1-Black	.051 .046	49	27	.144	1.35	F
6	22	3	19/34	1-White 1-Black 1-Red	.051 .046	49	27	.154	1.35	F
7	22	4	19/34	1-White 1-Black 1-Red 1-Green	.051 .046	49	27	.170	1.65	F
8	22	5	19/34	1-White 1-Black 1-Red 1-Green 1-Yellow	.051 .046	49	27	.190	1.90	F

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P No.	Conductors			Primary Insulation Color	Dia	Max Capacitance Ft		Wyr Dia Max	Lay Lg Max	Rev Status Ltr
	Size (AWG)	No. of	Stranding			Grounded (PF)	Mutual (PF)			
9	22	1	19/34	White	.051 .046	63	-	.093		
10	22	2	19/34	1-White 1-Black	.051 .046	49	27	.144		F
11	22	5	19/34	1-White 1-Black 1-Red 1-Green 1-Blue	.051 .046	49	27	.190	1.80	F
12	24	1	19/36	White	.041 .037	75	-	.077		F
13	24	2	19/36	1-White 1-Black	.041 .037	53	32	.126	1.30	F
14	24	3	19/36	1-White 1-Black 1-Red	.041 .037	53	32	.132	1.30	F
15	24	4	19/36	1-White 1-Black 1-Red 1-Green	.041 .037	53	32	.144	1.60	F
16	24	5	19/36	1-White 1-Black 1-Red 1-Green 1-Yellow	.041 .037	53	32	.166	1.70	F

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1. SCOPE

1.1 This document establishes the requirements for the procurement of a general purpose high frequency shielded electrical cable for use at temperatures up to +200°C, and at working voltages up to 600 volts (see 6.1).

2. APPLICABLE DOCUMENTS

2.1 The following documents form a part of this document to the extent specified herein:

MIL-C-17	Cables, Radiofrequency, Coaxial, Dual Coaxial, Twin Conductor and Twin Lead
MIL-C-12000	Cable, Cord, and Wire, Electric, Packaging of
MIL-W-16878	Wire, Electrical, Insulated, High Temperature
MIL-STD-130	Identification Marking of U.S. Military Property
MIL-STD-202	Test Methods for Electronic and Electrical Component Parts

All Military Standards (MIL-STD-), Military Specifications (MIL-), Ordnance Pamphlets (OP-), Federal Standards (FED-STD-), and Federal Specifications shall be ordered from the Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, Pennsylvania 19120.

3. REQUIREMENTS

3.1 Except as specified herein, all insulated conductors shall be in accordance with MIL-W-16878/4, 200°C, Type E, stranding and diameter as specified in the parts tabulation.

3.2 The conductors primary insulation shall be extruded polytetrafluoroethylene (TFE) in accordance with MIL-W-16878, Type E, color as specified in the parts tabulation.

3.3 The shield shall be a woven braid of silver plated copper strands in accordance with MIL-W-16878.

3.4 The jacket shall be an extruded wall of white color fluorinated ethylene propylene (FEP) in accordance with MIL-W-16878.

3.5 Lay Length. - Multiconductor cables shall have a lay length not exceeding that specified in the parts tabulation.

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3.6 Construction:

- First. - Select the number of conductors, in accordance with 3.2 as specified.
- Second. - If more than one conductor, twist together the number of conductors specified, using a uniform lay in accordance with 3.5.
- Third. - Evenly apply a woven braid shield, in accordance with 3.3.
- Fourth. - Apply a jacket, in accordance with 3.4 over the shield.

3.7 Dielectric Strength. - The cable shall withstand a 1500 ± 15 volt, rms, 60 Hz test potential, applied between any two conductors, between any conductor and shield, and between the shield and ground without breakdown, disruptive discharge, or damage of any kind.

3.8 Grounded Capacitance. - The grounded capacitance shall not be greater than that specified in the parts tabulation.

3.9 Mutual Capacitance. - The mutual capacitance shall not exceed that specified in the parts tabulation.

3.10 Capacitive Unbalance. - The capacitive unbalance for each twisted pair conductor cable shall not exceed 8 percent.

3.11 Workmanship. - The cable shall show consistency in workmanship. Such defects as discolored, patched or cracked insulation; inconsistent conductor coating, large variations in cross section shape and diameter shall be cause for rejection.

3.12 Minimum Cable Length. - Unless otherwise specified by the procuring activity, cables having a length less than 50 continuous feet shall not be accepted.

3.13 Marking. - Marking shall be in accordance with MIL-STD-130 and shall include this document number, P number, revision letter to which the cable is manufactured, manufacturer's symbol and the date of manufacture. This information shall appear only upon the reel ends or upon a tag firmly secured to a coil of cable. **DO NOT MARK THE CABLE.** (For P number and revision letter, see revision status tabulation.)

4. QUALITY ASSURANCE PROVISIONS

4.1 Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable to the Government. The Government reserves the right to perform any of the inspections set forth in the document where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

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shall furnish written certification that the cable is constructed to comply with the full requirements of this document in lieu of qualification inspection. This certification will be required prior to the acceptance of any lot).

b. Quality conformance inspection.

4.3 Qualification inspection. The supplier shall submit a specimen cable of suitable length which has been made using the same materials and processes proposed for the production cable. The specimen cable shall be subjected to all the qualification inspections tabulated by Table I. Failure to pass any inspection shall be cause for rejection.

4.4 Quality Conformance Inspection

4.4.1 Inspection Lot. - All completed cable, of the same "P" number, produced in a continuous production run, without process or material change, and offered for acceptance at the same time, shall be considered a lot.

4.4.2 Material Certification. - The supplier shall submit, with each lot offered for acceptance, certification verifying conformance with the material and finish requirements of this document.

4.4.3 Sampling. - Specimen cable shall be selected, at random, from reels of finished cable and subjected to all the quality conformance inspections tabulated by Table I. Failure to pass any test shall be cause for rejecting the lot.

TABLE I
QUALITY ASSURANCE INSPECTIONS

Inspection or Test	Requirement	Test Method	Qualification Inspection	Quality Conformance Inspection
Visual and Dimensional	3.6, 3.11, 3.12, 3.13	4.5.1	Yes	Yes
Dielectric Strength	3.7	MIL-STD-202 Method, 301	Yes	Yes
Grounded Capacitance	3.8	MIL-C-17	Yes	Yes
Mutual Capacitance	3.9	MIL-C-17	Yes	Yes
Capacitive Unbalance	3.10	MIL-C-17	Yes	Yes

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4.5 Test Methods

4.5.1 Visual and Dimensional. - The specimen cable shall be inspected to verify conformance with the construction, dimensional and workmanship requirements of this document.

5. PREPARATION FOR DELIVERY

5.1 Packaging and packing shall be in accordance with MIL-C-12000, Level C.

6. NOTES

6.1 The cables primary and jacket insulation has high resistance to damage by hot soldering irons.

SUGGESTED SOURCES OF SUPPLY:

Wirecraft Products Inc.
West Brookfield, Mass.
Code Ident 24868

Harbour Industries Inc.
Shelburne, Vermont
Code Ident 27476

Intemp Wires Co.
Westbury, N.Y.
Code Ident 99114

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