INCH-POUND
MIL-W-16878/34A(NAVY)
11 September 1992
SUPERSEDING
MIL-W-16878/34(NAVY)
25 June 1982

MILITARY SPECIFICATION SHEET

WIRE, ELECTRICAL, POLYTETRAFLUOROETHYLENE (PTFE) INSULATED, 200°C, 1000 VOLTS, DOUBLE WRAPPED INSULATION

This specification is approved for use by the Department of the Navy and is available for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-W-16878.

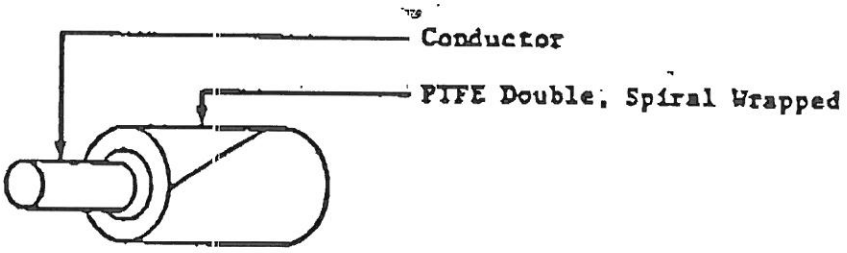

FIGURE 1. Construction.

AMSC N/A
FSC 6145
DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

TABLE I. Construction details.

PIN 1/	Wire size	Stranding	Conductor		Conductor diameter (nominal) (inch)	Finished wire diameter (inch)	
			Material	Coating		Min	Max
M16878/34-BAB*	32	7 X 40	Copper	Silver	0.010	0.036	0.044
M16878/34-BBB*	30	7 X 38	Copper	Silver	.012	.038	.046
M16878/34-BCB*	28	7 X 36	Copper	Silver	.015	.041	.049
M16878/34-BDB*	26	7 X 34	Copper	Silver	.019	.045	.053
M16878/34-BEB*	24	7 X 32	Copper	Silver	.024	.050	.058
M16878/34-BFB*	22	7 X 30	Copper	Silver	.030	.056	.064
M16878/34-BGB*	20	7 X 28	Copper	Silver	.038	.064	.072
M16878/34-BHB*	18	7 X 26	Copper	Silver	.048	.074	.084
M16878/34-BJE*	16	19 X 29	Copper	Silver	.057	.083	.095
M16878/34-BKE*	14	19 X 27	Copper	Silver	.072	.098	.114
M16878/34-BLE*	12	19 X 25	Copper	Silver	.091	.117	.133
M16878/34-BMG*	10	37 X 26	Copper	Silver	.111	.137	.153
M16878/34-BNL*	8	133 X 29	Copper	Silver	.169	.199	.219
M16878/34-BPL*	6	133 X 27	Copper	Silver	.213	.253	.273
M16878/34-BRL*	4	133 X 25	Copper	Silver	.257	.287	.307

1/ PIN stands for part or identifying number.

ADDITIONAL REQUIREMENTS:

Construction: The wire shall be insulated with two spirally-wrapped layers of 0.005-inch (nominal) thick PTFE tape. The first layer of tape shall be applied in the opposite direction to the lay of the conductor, and the second layer of tape shall be applied in the opposite direction of the first layer. Then the two layers shall be heat-bonded and fused.

Visual and mechanical examination: Required.

Spark test: 5.0 kV.

Impulse dielectric test: 8.0 kV.

Dielectric withstanding voltage: 3.0 kV.

Insulation resistance: $IR = K \log_{10} D/d$.

Where: IR = Minimum insulation resistance in megohms per 1000 feet at 20°C.
K = 50,000.
D = Maximum average diameter of finished wire.
d = Conductor diameter.

Conductor resistance: See table I.

Cold bend: Condition 4 hours at minus 65 ± 1°C (see table II).