

## Military Specification

# Hookup Wire



### • POLYTETRAFLUOROETHYLENE (PTFE) INSULATION

MIL-W-16878/4 (PREVIOUSLY TYPE "E")

#### Description

- Conductor: Silver-plated copper with 40 microinches minimum coating thickness per ASTM B-298. Also available on special order are constructions with nickel-plated copper, silver-plated or nickel-plated, high-strength high-conductivity copper alloy.
- Insulation: Extruded PTFE, nominal wall thickness .010" (0.25mm). Bondable treated or sodium-etched coatings can be supplied upon special request.
- Color coding: Insulation color coding to MIL-STD-104 is available in solid colors and stripes.

#### Characteristics

- · Voltage Rating: 600 Volts rms.
- Temperature Range: -55°C to + 200°C with silver-plated conductors. -55°C to + 260°C with nickel-plated conductors.
- Insulation Flaw Test (Spark Test): 4,600 Volts rms @ 3.0 kHz
- Insulation Resistance: Meets specification requirements.
- Heat Resistance: +290°C for 96 hours.
- · Cold Bend: -65°C for 4 hours.

#### Features and Applications

This wire insulated with PTFE is rated at 600 volts rms, with the corresponding DC potential at 1,500 volts. Suitable for high-frequency use at elevated temperatures in high-reliability programs where electrical and thermal stability are important. It provides excellent solder-iron resistance. Weight is greatly reduced compared to other insulation types. Certain strandings meet Class C of NAS 703 or MPD 1506 (Type "E").

#### **Approvals**

- Passes VW-1 Vertical Flame Test.
- · OSHA Acceptable.
- MIL-W-16878/4 (previously Type "E").



Standard Putups 100 ft. 1000 ft. See color chart 8 in Technical Section Consult factory for availability of other colors and color combinations.

	Part			Nom. Dia. of Conductor		Nom. O.D.		Color	Meterence
	ran Number	AWG	Stranding	in.	iucioi mm.	in.	ハリ、 mm.	Code	Military Number
	13201	32	Solid	.008	0.20	.028	0.71	CF	M16878/4BAA
- <u>18</u>	13207	32	7/40	.009	0.23	.029	0.74	. CF	M16878/4BAB
	13219	32	19/44	.010	0.25	.030	0.76	CF	N/A
- 1	13001	30	Solid	.010	0.25	.030	0.76	CF	M16878/4BBA
	13007	30	7/38	.012	0.30	.032	0.81	CF	M16878/48BB
	13019	30	19/42	.012	0.30	.030	0.76	CF	N/A
	12801	28	Solid	.013	0.33	.033	0.64	CF	M16878/4BCA
	12807	28	7/36	.015	0.38	.035	0.89	0,2,5,9	M16878/4BCB*
	12819	28	19/40	.015	0.38	.035	0.89	CF	N/A
	12601	26	Solid	.016	0.41	.036	0.91	0,2,5,9	M16878/4BDA
	12607	26	7/34	.019	0.48	.039	0.99	0-9	M16878/48DB
	12619	26	19/38	.019	0.48	.039	0.99	0-9	M16878/4BDE
	12401	24	Solid	.020	0.51	.040	1.02	0,2,5,9	M16878/4BEA
	12407	24	7/32	.024	0.61	.044	1.12	0-9	M16878/4BEB
	12419	24	19/36	.024	0.61	.044	1.12	0-9	M16878/4BEE*
	12201	22	Solid	.025	0.64	.045	1.14	0,2,5,9	M16878/4BFA
	12207	22	7/30	.030	0.76	.050	1.27	0-9	M16878/4BFB
	12219	22	19/34	.030	0.76	.050	1.27	0-9	M16878/4BFE <sup>*</sup>
	12001	20	Solid	.032	0.81	.052	1.32	0,2,5,9	M16878/4BGA
	12007	20	7/28	.038	0.97	.058	1.47	0-9	M16878/4BGB
	12019	20	19/32	.038	0.97	.058	1.47	0-9	M16878/4BGE*
	11801	18	Solid	.040	1.02	.060	1.52	CF	M16878/4BHA
	11807	18	7/26 -	.048	1.22	.068	1.73	0-9	M16878/4BHB
	11819	18	19/30	.047	1.19	.068	1.73	0-9	M16878/4BHE <sup>*</sup>
	11619	16	19/29	.053	1.35	.076	1.98	0-9	M16878/4BJE*
	11419	14	19/27	.067	1.70	.093	2.36	0-9	M16878/4BKE*
	11219	12	19/25	.084	2.13	.111	2.62	0,2,5,9	M16878/4BLE*
	11037	10	37/26	.110	2.79	.138	3.51	CF	M16878/4BMG*

CF - Consult factory. N/A - Not available as M16878. \*Also available in latest revision of MIL-W-22759/11.

Manufactured to latest available revision without surface marking.

Other AWG's and strandings available upon request (see NEMA HP-3).