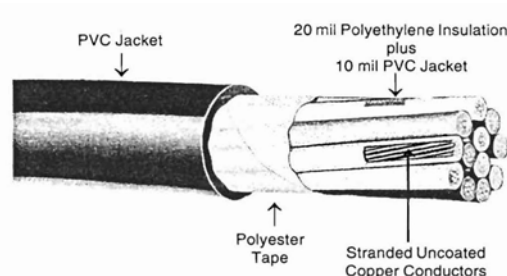


20-10 CONTROL CABLE, 600 VOLTS (14AWG)

Polyethylene - PVC Singles, PVC Jacket
General Purpose Control Cable

<p>APPLICATION: Standard general purpose control cable for important control circuits in industrial plants and station control cable for utilities. Suitable for the operation and interconnection of protective devices; rated circuit voltage 600 volts, recommended for operation at 75°C maximum continuous conductor temperature. Cables may be installed in open air, in ducts or conduit, or in tray or trough and direct burial.</p> <p>STANDARDS: Physical and electrical tests in accordance with appropriate sections of ICEA S-73-532, NEMA WC57.</p> <p>CONSTRUCTION: Stranded uncoated copper conductors, 20 mils black high molecular weight polyethylene insulation, 10 mils full color coded PVC Jacket over each insulated conductor, two conductors flat, three or more conductors twisted with suitable fillers where necessary to make round, polyester tape over assembly, PVC jacket overall, surface printed.</p>	
--	--

#14 AWG - 7 Strand

USAWC Part #	Number of Conductors	Overall PVC Jacket Mils	Nom. Diam. Inches	Weight lbs/ 1000 ft	
				Net	Copper
14-02 20/10	2 Flat	45	.23 x .37	65	25
14-03 20/10	3	45	.39	90	38
14-04 20/10	4	45	.43	110	51
14-05 20/10	5	45	.47	135	64
14-06 20/10	6	45	.51	155	78
14-07 20/10	7	45	.51	170	90
14-08 20/10	8	60	.59	215	104
14-09 20/10	9	60	.62	245	116
14-10 20/10	10	60	.68	260	130
14-11 20/10	11	60	.68	280	143
14-12 20/10	12	60	.70	295	154
14-13 20/10	13	60	.71	320	169
14-14 20/10	14	60	.73	335	182
14-15 20/10	15	60	.77	370	195
14-16 20/10	16	60	.77	380	208
14-17 20/10	17	60	.81	405	221
14-18 20/10	18	60	.81	420	234
14-19 20/10	19	60	.81	435	244
14-20 20/10	20	80	.90	490	260
14-23 20/10	23	80	.94	575	299
14-25 20/10	25	80	.99	605	325
14-27 20/10	27	80	1.01	665	351
14-29 20/10	29	80	1.02	705	377
14-31 20/10	31	80	1.07	750	403
14-32 20/10	32	80	1.09	775	416
14-37 20/10	37	80	1.13	840	481

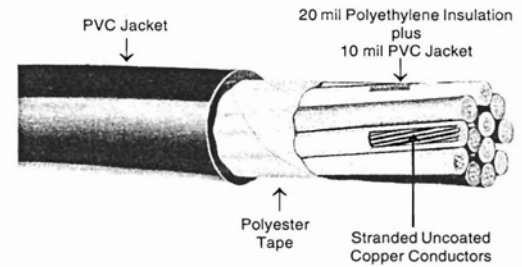
20-10 CONTROL CABLE, 600 VOLTS (12AWG)

Polyethylene - PVC Singles, PVC Jacket
General Purpose Control Cable

APPLICATION: Standard general purpose control cable for important control circuits in industrial plants and station control cable for utilities. Suitable for the operation and interconnection of protective devices; rated circuit voltage 600 volts, recommended for operation at 75°C maximum continuous conductor temperature. Cables may be installed in open air, in ducts or conduit, or in tray or trough and direct burial.

STANDARDS: Physical and electrical tests in accordance with appropriate sections of ICEA S-73-532, NEMA WC57.

CONSTRUCTION: Stranded uncoated copper conductors, 20 mils black high molecular weight polyethylene insulation, 10 mils full color coded PVC Jacket over each insulated conductor, two conductors flat, three or more conductors twisted with suitable fillers where necessary to make round, polyester tape over assembly, PVC jacket overall, surface printed.



#12 AWG - 7 Strand

USAWC Part #	Number of Conductors	Overall PVC Jacket Mils	Nom. Diam. Inches	Weight lbs/ 1000 ft	
				Net	Copper
12-02 20/10	2 Flat	45	.25 x .41	80	40
12-03 20/10	3	45	.43	120	61
12-04 20/10	4	45	.48	150	81
12-05 20/10	5	45	.52	180	102
12-06 20/10	6	60	.60	220	126
12-07 20/10	7	60	.60	250	143
12-08 20/10	8	60	.65	290	168
12-09 20/10	9	60	.69	330	184
12-10 20/10	10	60	.75	360	210
12-11 20/10	11	60	.75	385	231
12-12 20/10	12	60	.78	405	245
12-13 20/10	13	60	.79	445	273
12-14 20/10	14	60	.82	470	294
12-15 20/10	15	80	.90	550	315
12-16 20/10	16	80	.90	560	336
12-17 20/10	17	80	.95	610	357
12-18 20/10	18	80	.95	625	378
12-19 20/10	19	80	.95	640	388
12-20 20/10	20	80	1.00	685	420
12-23 20/10	23	80	1.04	775	483
12-25 20/10	25	80	1.11	840	525
12-27 20/10	27	80	1.13	900	567
12-29 20/10	29	80	1.14	950	609
12-31 20/10	31	80	1.19	1015	651
12-32 20/10	32	80	1.21	1055	672
12-37 20/10	37	80	1.26	1210	777

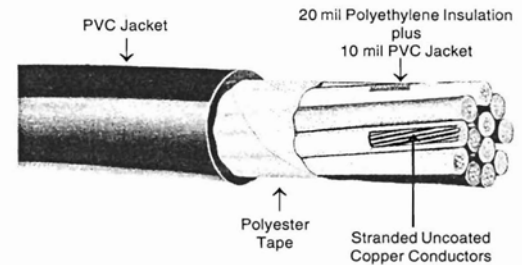
20-10 CONTROL CABLE, 600 VOLTS (10AWG)

Polyethylene - PVC Singles, PVC Jacket
General Purpose Control Cable

APPLICATION: Standard general purpose control cable for important control circuits in industrial plants and station control cable for utilities. Suitable for the operation and interconnection of protective devices; rated circuit voltage 600 volts, recommended for operation at 75°C maximum continuous conductor temperature. Cables may be installed in open air, in ducts or conduit, or in tray or trough and direct burial.

STANDARDS: Physical and electrical tests in accordance with appropriate sections of ICEA S-73-532, NEMA WC57.

CONSTRUCTION: Stranded uncoated copper conductors, 20 mils black high molecular weight polyethylene insulation, 10 mils full color coded PVC Jacket over each insulated conductor, two conductors flat, three or more conductors twisted with suitable fillers where necessary to make round, polyester tape over assembly, PVC jacket overall, surface printed.



#10 AWG - 7 Strand

USAWC Part #	Number of Conductors	Overall PVC Jacket Mils	Nom. Diam. Inches	Weight lbs/ 1000 ft	
				Net	Copper
10-02 20/10	2 Flat	45	.28 x .46	115	64
10-03 20/10	3	45	.49	165	97
10-04 20/10	4	60	.57	230	129
10-05 20/10	5	60	.62	280	162
10-06 20/10	6	60	.67	320	192
10-07 20/10	7	60	.67	355	227
10-08 20/10	8	60	.73	415	256
10-09 20/10	9	60	.79	475	292
10-10 20/10	10	80	.89	535	320
10-11 20/10	11	80	.89	580	352
10-12 20/10	12	80	.92	615	389
10-13 20/10	13	80	.94	670	416
10-14 20/10	14	80	.97	710	448
10-15 20/10	15	80	1.02	760	480
10-16 20/10	16	80	1.02	800	512
10-17 20/10	17	80	1.07	870	544
10-18 20/10	18	80	1.07	895	576
10-19 20/10	19	80	1.07	920	616
10-20 20/10	20	80	1.13	980	640
10-23 20/10	23	80	1.18	1125	736
10-25 20/10	25	80	1.26	1250	800
10-27 20/10	27	80	1.28	1330	864
10-29 20/10	29	80	1.30	1370	928
10-31 20/10	31	80	1.36	1510	992
10-32 20/10	32	80	1.38	1565	1024
10-37 20/10	37	80	1.44	1755	1184

Specification

Single- and Multi-Conductor Polyethylene Insulated, PVC (20-10) Jacketed Control Cable, Type CT-B, 600 Volts

1. SCOPE

- 1.1 This specification describes single- and multi-conductor control cables insulated and jacketed with thermoplastic compounds for use on control circuits not exceeding 600 volts between conductors, recommended for operation at 75°C maximum continuous conductor temperature. Cables may be installed in open air, in ducts or conduit, in trays or troughs, and direct burial. Single conductor cables are not recommended for direct earth burial.

2. APPLICABLE STANDARD

- 2.1 The following standard shall form a part of this specification to the extent specified herein:
 - 2.1.1 ICEA Pub. No. S-73-532, NEMA Pub. No. WC57, Control Cables.

3. CONDUCTORS

- 3.1 Conductors shall be concentrically stranded, Class B, uncoated soft copper, conforming to Part 2 of ICEA S-73-532. Conductor sizes shall be American Wire Gauge No. 14, No. 12, and No. 10.

4. INSULATION

- 4.1 Compound: Each conductor shall be insulated with black high molecular weight, low density polyethylene, meeting the requirements of ICEA S-73-532, Par. 3.3 and ASTM Specification D-1248 for Type 1, Class C, Category 5, Grade E4 or E5.
- 4.2 Thickness: The average thickness of insulation for single conductor control cable shall be 30 mils. The average thickness of insulation for single conductors to be used in multi-conductor assemblies shall be 20 mils. The minimum thickness at any point shall be not less than 90% of the specified average thickness. The insulation shall be applied tightly to the conductor and shall be free-stripping.

5. COVERING OVER INSULATION

- 5.1 Compound: Each individual polyethylene insulated conductor shall be covered with a color coded PVC (polyvinyl chloride) compound, meeting the physical and aging requirements of Table 3-2 of ICEA S-73-532.
- 5.2 Thickness: The average thickness of the PVC covering for single conductor control cable shall be 15 mils. The average thickness of the PVC covering for single conductors to be used in multi-conductor assemblies shall be 10 mils. The minimum thickness at any point shall be not less than 90% of the specified thickness.
- 5.3 Color Coding: The color coding shall consist of colored PVC compound with colored bands applied to the surface in accordance with the first 21 colors of ICEA S-73-532, Appendix E, Table E-1. For cables with more than 21 conductors, the colors shall be repeated as necessary.

6. ASSEMBLY

- 6.1 For three conductors or more, the insulated color coded conductors shall be cabled together with nonhygroscopic fillers when necessary to make round. The cable assembly shall be covered with a polyester tape applied with a 10% minimum lap. Two conductor cable shall be flat without separator tape, unless otherwise specified.

7. OVERALL JACKET

- 7.1 Each multi-conductor cable shall have a PVC protective jacket applied over the assembly. This jacket shall meet the requirements of Part 4 of ICEA S-73-532. The average thickness of the jacket shall be in accordance with ICEA S-73-532, Table 4-1. The minimum thickness at any point shall be not less than 80% of the specified average thickness.

8. SURFACE MARKING

- 8.1 Multi-conductor cables shall be identified by means of surface ink printing indicating: manufacturer, number of conductors, size and voltage rating.

9. TESTS

- 9.1 Individual conductors and completed cables shall be tested in accordance with the applicable tests as described in ICEA S-73-532, Part 6.