

SPECIFICATION CONTROL DRAWING

44A0214

TITLE WIRE, ELECTRIC, RADIATION-CROSSLINKED POLYALKENE, INSULATED, SILVER-COATED HIGH STRENGTH COPPER ALLOY, LIGHTWEIGHT, GENERAL PURPOSE, 1000 VOLT

Date 8-11-92

Revision B

This specification sheet forms a part of the latest issue of Raychem Specification 44 and MIL-W-81044 as applicable.

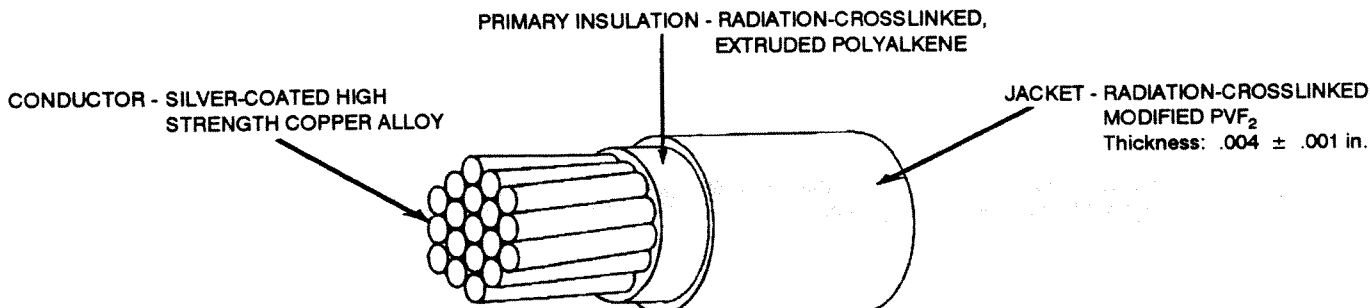


TABLE I. CONSTRUCTION DETAILS

PART NUMBER	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	MAXIMUM DIAMETER OF STRANDED CONDUCTOR (in.)	FINISHED WIRE		
				MAXIMUM RESISTANCE AT 20°C (ohms/1000ft.)	DIAMETER (in.)	MAXIMUM WEIGHT (lbs/1000 ft)
44A0214-26*	26	19 X 38	.021	44.4	.040 ± .002	1.6
44A0214-24*	24	19 x 36	.026	28.1	.046 ± .002	2.4
44A0214-22*	22	19 x 34	.033	17.6	.054 ± .002	3.5
44A0214-20*	20	19 x 32	.041	10.9	.062 ± .002	5.1

TABLE II. PERFORMANCE DETAILS

PART NUMBER	BEND TESTING				
	MANDREL DIAMETER (inch) (± 3%)			WEIGHT (lb) (± 3%)	
	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND	WRAP	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND
44A0214-26*	.500	.750	.250	.380	1.00
44A0214-24*	.500	1.00	.250	.380	2.00
44A0214-22*	.750	1.00	.250	.380	2.00
44A0214-20*	.750	1.00	.250	.500	3.00

COLORS AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681.

DIMENSIONS ARE IN INCHES, AND UNLESS OTHERWISE DESIGNATED ARE NOMINAL.

THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BID.

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WIRE RATINGS AND ADDITIONAL REQUIREMENTS

- TEMPERATURE RATING: 150°C,
Maximum continuous conductor temperature
- VOLTAGE RATING: 1000 volts (rms)
- ACCELERATED AGING: 300 ± 2°C for 6 hours
Identification legibility, 225 ± 2°C for 6 hours
- * BLOCKING: 150 ± 2°C for 24 hours
 - COLOR: white preferred
 - FLAMMABILITY: 30 seconds (maximum); 3 in. (maximum);
no flaming of facial tissue
 - * HUMIDITY RESISTANCE: Insulation Resistance,
5000 megohms for 1000 ft (minimum)
 - IDENTIFICATION, STRIPING OR BAND DURABILITY: 125 cycles
(250 strokes) (minimum), 500 g weight
 - * IMMERSION: Diameter increase 5% (maximum); no cracking, no dielectric breakdown
- INSULATION ELONGATION AND TENSILE STRENGTH:
- Primary Insulation,
Tensile strength, 2500 lbf/in² (minimum)
Elongation, 150% (minimum)
- INSULATION FLAWS:
- Primary Insulation,
Spark test, 2.0 kV (rms), 60 Hz, 100% test
Impulse Dielectric test, 6.0 kV (peak), 100% test
 - Finished Wire,
Impulse Dielectric test, 8.0 kV (peak), 100% test
- INSULATION RESISTANCE: 5000 megohms for 1000 ft (minimum)
- * LIFE CYCLE: 200 ± 2°C for 168 hours
 - LOW TEMPERATURE-COLD BEND: -65 ± 2°C for 4 hours
 - SHRINKAGE: 300 ± 2°C, 0.125 in. (maximum) in 12 in.
 - * SMOKE: 200 ± 2°C. No visible smoke.
 - * SURFACE RESISTANCE: 500 megohms-in. (minimum), both readings
 - THERMAL SHOCK RESISTANCE: 150 ± 2°C, 0.060 in. (maximum)
 - VOLTAGE WITHSTAND TEST (POST ENVIRONMENTAL): 3000 volts (rms), 60 Hz, 5 minutes
 - WICKING: 2.25 in. (maximum)

PART NUMBER:

The "*" in the part numbers on page 1 shall be replaced by a color code designator

Example: AWG 20, White: 44A0214-20-9

AWG 20, White with black stripe: 44A0214-20-90

* Qualification Test