

SPECIFICATION CONTROL DRAWING

44A0814

TITLE WIRE, ELECTRIC, RADIATION-CROSSLINKED POLYALKENE INSULATED, SILVER-COATED HIGH-STRENGTH COPPER ALLOY, MEDIUM WEIGHT, AIRFRAME, 600 VOLT

Date 2-4-91

Revision B

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

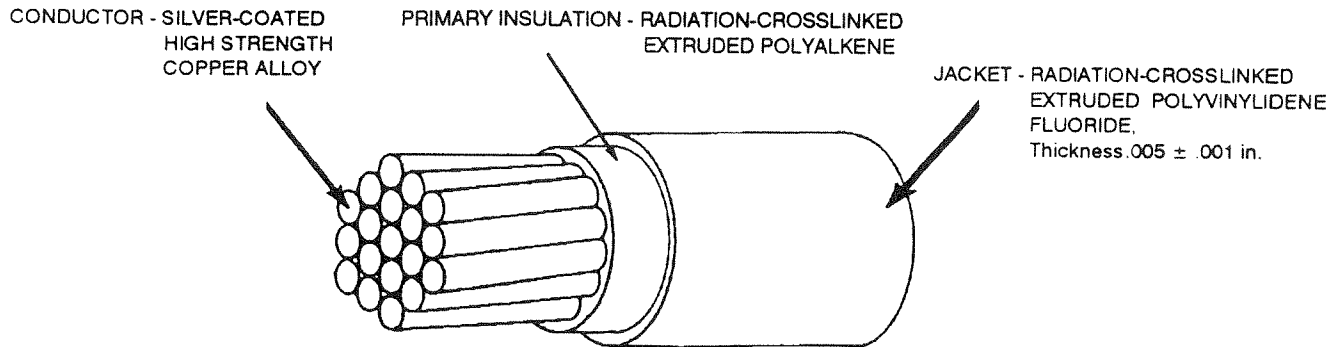


TABLE I. CONSTRUCTION DETAILS

PART NUMBER	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	DIAMETER OF STRANDED CONDUCTOR (in.)		FINISHED WIRE		
			MINIMUM	MAXIMUM	MAXIMUM RESISTANCE AT 20°C (ohms/1000ft)	DIAMETER (in.)	MAXIMUM WEIGHT (lb/1000 ft)
44A0814-26-*	26	19 x 38	.018	.020	44.8	.048 ± .002	1.9
44A0814-24-*	24	19 x 36	.023	.025	28.4	.054 ± .002	2.7
44A0814-22-*	22	19 x 34	.029	.032	17.5	.062 ± .003	3.9
44A0814-20-*	20	19 x 32	.037	.040	10.7	.070 ± .003	5.5

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
44A0814-26-*	.500	1.00	250	0.50	3.00
44A0814-24-*	.500	1.00	250	0.50	3.00
44A0814-22-*	.750	1.00	250	1.50	3.00
44A0814-20-*	.750	1.00	250	2.00	4.00

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

DIMENSIONS ARE IN INCHES, AND UNLESS OTHERWISE DESIGNATED ARE NOMINAL

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WIRE RATINGS AND ADDITIONAL REQUIREMENTS**TEMPERATURE RATING: 150°C**

Maximum continuous conductor temperature

VOLTAGE RATING: 600 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,

SparkTest, 3.0 kV (rms), 60 Hz, 100% test

Impulse DielectricTest, 6.0 kV (peak), 100% test

Finished Wire;

Impulse DielectricTest, 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: 150 ± 2°C, 0.060 in. (maximum)****VOLTAGE WITHSTAND TEST: (After Accelerated Aging, Immersion, Life Cycle and**

Low Temperature-Cold Bend) 2500 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 color code designators**

Example: AWG 20, white: 44A0814-20-9

AWG 20, white with black stripe: 44A0814-20-90