

# SPECIFICATION CONTROL DRAWING

44A132X

TITLE TWO CONDUCTOR CABLE, RADIATION-CROSSLINKED, POLYALKENE-INSULATED, SHIELDED, JACKETED, LIGHTWEIGHT, GENERAL PURPOSE, 2500 VOLT

Date 10-6-95

Revision E

This specification sheet forms a part of the latest issue of Raychem Specification 44

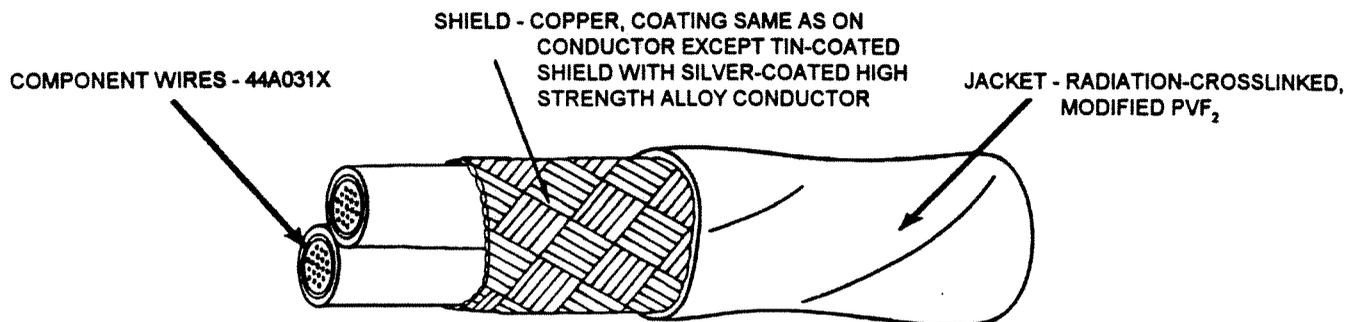


TABLE I. CABLE CONSTRUCTION DETAILS

PART NUMBER	CONDUCTOR SIZE (AWG)	SHIELD SIZE (AWG)	JACKET THICKNESS (in.)		OUTSIDE DIAMETER (in.)		MAXIMUM WEIGHT (lb/1000 ft)
			MINIMUM	NOMINAL	NOMINAL	MAXIMUM	
44A132X-24*	24	36	.006	.008	.153	.160	15.4
44A132X-22*	22	36	.007	.009	.179	.186	20.4
44A132X-20*	20	36	.007	.009	.197	.204	25.4
44A132X-18*	18	36	.007	.009	.217	.225	32.0
44A132X-16*	16	36	.007	.009	.235	.243	37.9
44A132X-14*	14	36	.008	.010	.273	.283	52.1
44A132X-12*	12	36	.008	.010	.305	.320	70.6
44A132X-10*	10	36	.008	.010	.365	.383	101.
44A132X- 8*	8	36	.010	.012	.483	.507	173.
44A132X- 6*	6	34	.010	.012	.588	.617	268.
44A132X- 4*	4	34	.016	.018	.713	.749	395.

TABLE II. CABLE PERFORMANCE DETAILS

PART NUMBER	BEND TESTING			
	MANDREL DIAMETER (inch) (± 3%)		WEIGHT (lb) (± 3%)	
	ACCELERATED AGING IMMERSION AND LIFE CYCLE	COLD BEND	ACCELERATED AGING IMMERSION AND LIFE CYCLE	COLD BEND
44A132X-24*	6.00	6.00	375	9.00
44A132X-22*	6.00	6.00	500	9.00
44A132X-20*	6.00	6.00	500	12.0
44A132X-18*	6.00	6.00	750	12.0
44A132X-16*	6.00	6.00	750	15.0
44A132X-14*	10.0	10.0	1.00	15.0
44A132X-12*	10.0	10.0	1.50	15.0
44A132X-10*	18.0	18.0	2.00	15.0
44A132X- 8*	18.0	18.0	2.00	18.0
44A132X- 6*	18.0	18.0	2.00	30.0
44A132X- 4*	18.0	18.0	2.00	30.0

NOTE: Nominal values are for information only.  
Nominal values are not requirements.

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

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

**Raychem**

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### CABLE RATINGS AND ADDITIONAL REQUIREMENTS

**TEMPERATURE RATING: 150°C**

Maximum continuous conductor temperature

**VOLTAGE RATING: 2500 volts (rms)**

**ACCELERATED AGING: 300 ± 3°C for 6 hours**

**BLOCKING: 150 ± 3°C for 6 hours**

**DIELECTRIC WITHSTAND: 5000 volts (rms), 60 Hz, 1 minute**

**FLAMMABILITY: 30 seconds (maximum); 3 in. (maximum);**  
no flaming of facial tissue

**IMMERSION: Diameter increase 5% (maximum);**  
no cracking, no dielectric breakdown

**JACKET COLOR: White preferred**

**JACKET CONCENTRICITY: 70% (minimum)**

**JACKET ELONGATION AND TENSILE STRENGTH:**

Elongation, 200% (minimum)

Tensile Strength, 4000 lbf/in<sup>2</sup> (minimum)

**JACKET FLAWS:**

Spark Test, 1.5 kV (rms), 60 Hz, 100% test

Impulse Dielectric Test, 6.0 kV (peak), 100% test

**LIFE CYCLE: 200 ± 3°C for 168 hours**

**LOW TEMPERATURE-COLD BEND: -65 ± 2°C for 4 hours**

**SHIELD COVERAGE: 85% (minimum)**

**VOLTAGE WITHSTAND TEST (POST ENVIRONMENTAL): (After Accelerated Aging,**  
Immersion, Life Cycle and Low Temperature-Cold Bend)

1000 volts (rms), 60 Hz, 1 minute

**PART NUMBER:**

The "X" in the part numbers on page 1 shall be replaced by the applicable conductor material designator as follows:

- 1 tin-coated copper
- 2 silver-coated copper
- 3 nickel-coated copper
- 4 silver-coated high strength copper alloy

The "\*\*" in the part numbers on page 1 shall be replaced by color code designators with a slash separating the component wire colors and a dash separating the component wire colors from the jacket color.

Example: AWG 20, tin-coated copper wire; white and brown component wires;  
white jacket; 44A1321-20-9/1-9

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