

# SPECIFICATION CONTROL DRAWING

WXA-0072

TITLE WIRE, ELECTRIC, RADIATION-CROSSLINKED, POLYALKENE-INSULATED  
TIN-COATED COPPER, LIGHTWEIGHT, GENERAL PURPOSE, 600 VOLT

Date 3-12-96

Revision D

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

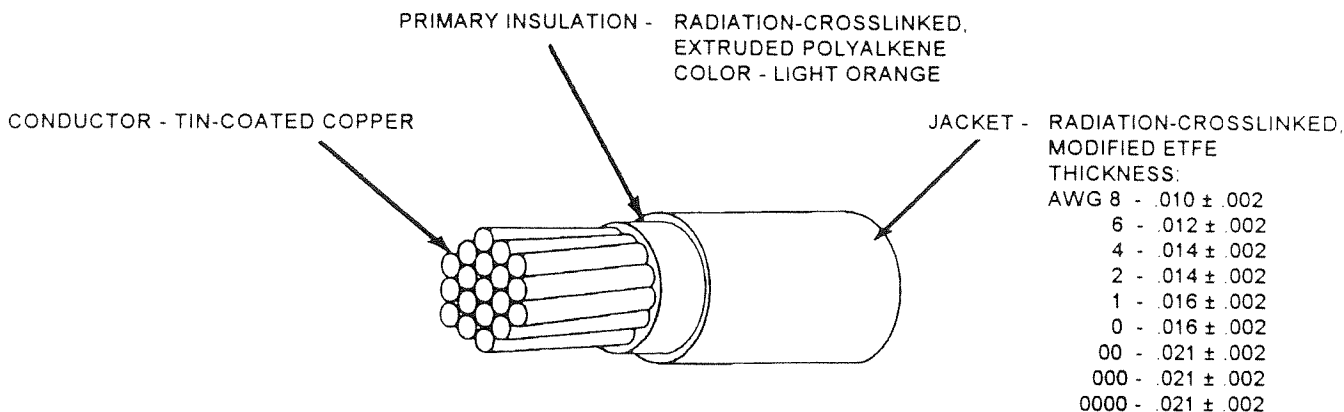


TABLE I. CONSTRUCTION DETAILS

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)
WXA-0072- 8-*	8	133 x 29	.158	.173	.701	.199 ± .003	60.9
WXA-0072- 6-*	6	133 x 27	.198	.217	.445	.250 ± .003	97.9
WXA-0072- 4-*	4	133 x 25	.250	.274	.280	.312 ± .004	153.
WXA-0072- 2-*	2	665 x 30	.320	.340	.183	.388 ± .004	241.
WXA-0072- 1-*	1	817 x 30	.360	.380	.149	.431 ± .005	290.
WXA-0072- 0-*	0	1045 x 30	.405	.425	.116	.479 ± .006	385.
WXA-0072-00-*	00	1330 x 30	.450	.475	.091	.546 ± .007	497.
WXA-0072-000-*	000	1665 x 30	.500	.540	.071	.604 ± .008	581.
WXA-0072-0000-*	0000	2109 x 30	.565	.605	.056	.669 ± .008	724.

TABLE II. PERFORMANCE DETAILS

PART NUMBER	BEND TESTING			
	MANDREL DIAMETER (inch) (± 3%)		WEIGHT (lb) (± 3%)	
	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND
WXA-0072- 8-*	3.00	4.00	3.00	6.00
WXA-0072- 6-*	4.00	5.00	3.00	10.0
WXA-0072- 4-*	5.00	6.00	3.00	10.0
WXA-0072- 2-*	6.00	8.00	4.00	15.0
WXA-0072- 1-*	8.00	10.0	4.00	15.0
WXA-0072- 0-*	8.00	10.0	4.00	15.0
WXA-0072-00-*	10.0	14.0	6.00	20.0
WXA-0072-000-*	12.0	14.0	8.00	20.0
WXA-0072-0000-*	12.0	14.0	8.00	20.0

COLORS AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-881.

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.

**Raychem**

Raychem Corporation  
300 Constitution Drive, Menlo Park, California 94025  
1-800-2 Raychem FAX: 1-415-381-8297

## WIRE RATING AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms)

ACCELERATED AGING: 300 ± 3°C for 7 hours

BLOCKING: 200 ± 3°C for 24 hours per Raychem 55A spec

COLOR: White preferred

FLAMMABILITY: 30 seconds (maximum); 3 inch (maximum);

no flaming of facial tissue

HUMIDITY RESISTANCE: After humidity exposure, wire shall

meet the requirements for initial Insulation Resistance

IDENTIFICATION AND COLOR STRIPING DURABILITY: 125 cycles

(250 strokes) (minimum), 500 g weight

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

no dielectric breakdown

INSULATION RESISTANCE:

For AWG 8 - 6, 3000 megohms for 1000 ft. (minimum),

for AWG 4 - 0000, 2000 megohms for 1000 ft. (minimum)

INSULATION ELONGATION AND TENSILE STRENGTH:

(Primary insulation and jacket pulled together at 2 inches/minute)

Tensile Strength, 3000 lbf/in<sup>2</sup> (minimum)

Elongation, 75% (minimum)

INSULATION FLAWS:

Primary Insulation,

Spark Test, 1.5 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

LIFE CYCLE: 200 ± 2°C for 168 hours

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

SHRINKAGE: 230 ± 2°C, 0.125 inch (maximum) in 12 inches

SMOKE TEST: 200 ± 5°C

SURFACE RESISTANCE: 500 megohms-inch (minimum), both readings

THERMAL SHOCK RESISTANCE: 150 ± 2°C; AWG 8, 0.100 inch (maximum)

AWG 6-0000, 0.125 inch (maximum)

VOLTAGE WITHSTAND TEST (POST ENVIRONMENTAL):

2500 volts (rms), 60 Hz, 5 minutes

PART NUMBER:

The "" in the part numbers on page 1 shall be replaced by color code designators.

Example: AWG 8, white: WXA-0072-8-9