

SPECIFICATION CONTROL DRAWING

44A9673

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

Date 2-26-97

Revision

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

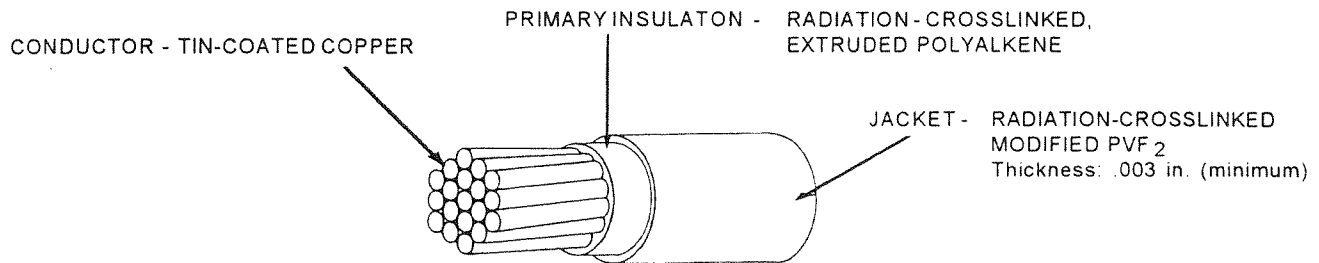


TABLE I. CONSTRUCTION DETAILS

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 (lbs/1000 ft.)
44A9673-24-*	24	19 x 36	.023	.026	26.2	.042 ± .002	2.1
44A9673-22-*	22	19 x 34	.029	.033	16.2	.049 ± .002	3.0
44A9673-20-*	20	19 x 32	.037	.041	9.88	.057 ± .002	4.5
44A9673-18-*	18	19 x 30	.046	.051	6.23	.067 ± .002	6.8

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
44A9673-24-*	.500	.500	.250	.375	.500
44A9673-22-*	.750	.750	.250	.375	1.00
44A9673-20-*	.750	.750	.250	.375	1.00
44A9673-18-*	1.00	1.00	.375	.500	1.00

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,
Elongation, 150% (minimum)
Tensile Strength, 2500 lbf/in² (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

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 TEST: 200 ± 2°C, no visible smoke

SOLDERABILITY (95% minimum coverage): Per MIL-STD-202, Method 208, except without steam aging, Type RMA Flux

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

THERMAL SHOCK RESISTANCE: 150 ± 2°C, 0.060 in. (maximum)

VOLTAGE WITHSTAND (POST ENVIRONMENTAL):

2500 volts (rms), 60 Hz, 5 minutes

WICKING: 2.25 in. (maximum)

PART NUMBER:

The "*" in the part numbers above shall be replaced by a color code designator.

Example: AWG 20, white: 44A9673-20-9

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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