SPECIFICATION CONTROL DRAWING

44A9964

TITLE	Date	Revision
WIRE, ELECTRICAL, RADIATION CROSSLINKED, POLYALKENE INSULATED, TIN-COATED COPPER, LIGHTWEIGHT, GENERAL PURPOSE, 1000 VOLT	10-23-92	

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

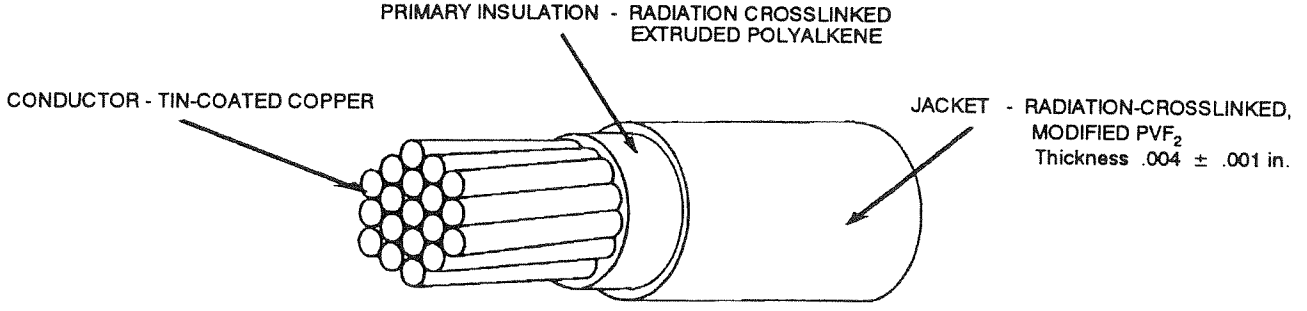


TABLE I. CONSTRUCTION DETAILS

PART NUMBER	CONDUCTOR SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	MAXIMUM DIAMETER OF STRANDED CONDUCTOR (inches)	MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft.)	DIAMETER (inches)	MAXIMUM WEIGHT (lb/1000 ft)
44A9964-16-*	16	37 x 32	.058	5.00	.081 ± .003	9.6
44A9964-14-*	14	37 x 30	.073	3.20	.098 ± .004	14.7

TABLE II. PERFORMANCE DETAILS

PART NUMBER	BEND TESTING				
	MANDREL DIAMETER (inch) (3%)			WEIGHT (lb) (± 3 %)	
	IMMERSION LIFE CYCLE AND ACCELERATED AGING	COLD BEND	WRAP TEST	IMMERSION LIFE CYCLE AND ACCELERATED AGING	COLD BEND
44A9964-16-*	1.00	1.50	.400	1.125	4.375
44A9964-14-*	1.50	2.00	.500	1.125	4.375

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 AND STRIPING 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, 2,500 lbf/in² (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 ± 3°C for 168 hours
LOW TEMPERATURE-COLD BEND: -65 ± 2°C for 4 hours
SHRINKAGE: 300 ± 3°C, .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 ± 3°C 0.060 in.
(maximum)
VOLTAGE WITHSTAND TEST: (After Accelerated Aging,
Immersion, Life Cycle and Low-Temperature Cold bend)
3000 volts (rms), 60 Hz, 5 minutes

PART NUMBER:
The "*" in the part numbers above shall be replaced
by a color code designator.
Example: AWG 16, White; 44A9964-16-9

This is an Americanized UK SCD of 44A9964, issue 1.

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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