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.

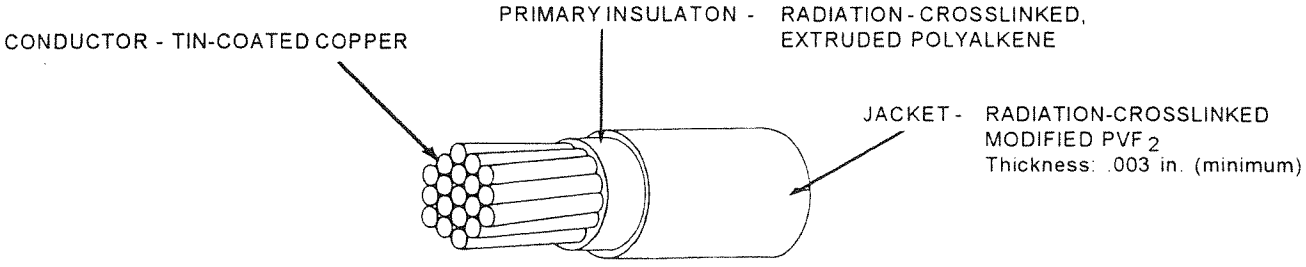


TABLE I. CONSTRUCTION DETAILS

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

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: 1-415-361-6297

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