



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# SPECIFICATION CONTROL DRAWING

44/0411

WIRE, RADIATION-CROSSLINKED, POLYALKENE-INSULATED,  
LIGHTWEIGHT, OUTER SPACE, 600 VOLT

5-25-11

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

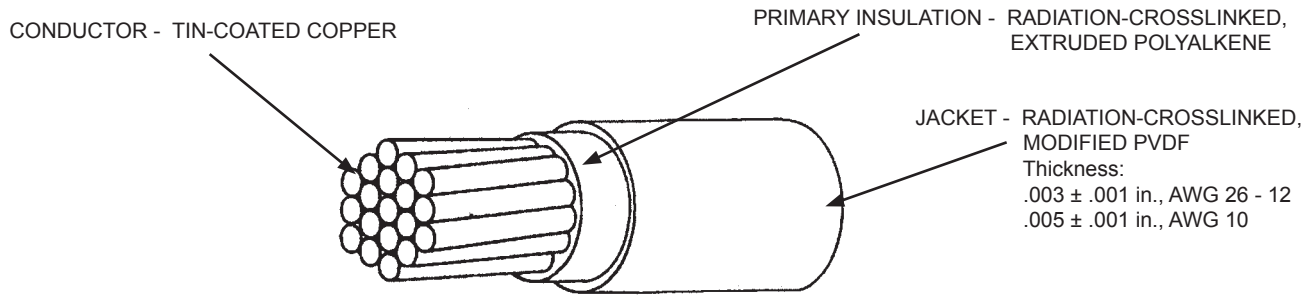


TABLE I. CONSTRUCTION DETAILS

PART NUMBER 1/	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	MAXIMUM DIAMETER OF STRANDED CONDUCTOR (in.)	FINISHED WIRE		
				MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft)	DIAMETER (in.)	MAXIMUM WEIGHT (lbs/1000 ft.)
44/0411-26-*	26	7 x 34	.021	42.5	.033 ± .002	1.3
44/0411-24-*	24	19 x 36	.026	26.2	.039 ± .002	2.0
44/0411-22-*	22	19 x 34	.033	16.2	.046 ± .002	3.0
44/0411-20-*	20	19 x 32	.041	9.88	.054 ± .002	4.5
44/0411-18-*	18	19 x 30	.051	6.23	.064 ± .002	7.0
44/0411-16-*	16	19 x 29	.058	4.81	.071 ± .003	8.7
44/0411-14-*	14	19 x 27	.073	3.06	.086 ± .004	13.7
44/0411-12-*	12	37 x 28	.090	2.02	.108 ± .004	21.7
44/0411-10-*	10	37 x 26	.114	1.26	.155 ± .005	34.8

TABLE II. PERFORMANCE DETAILS

PART NUMBER 1/	BEND TESTING						
	MANDREL DIAMETER (inch) (± 3%)				WEIGHT (lb) (± 3%)		
	IMMERSION LIFE CYCLE AND ACCELERATED AGING	COLD BEND	WRAP	RADIATION RESISTANCE	IMMERSION AND ACCELERATED AGING	LIFE CYCLE	COLD BEND
44/0411-26-*	.500	.500	.250	.750	.125	.125	.500
44/0411-24-*	.500	.500	.250	1.00	.185	.125	.500
44/0411-22-*	.750	.750	.375	1.00	.185	.185	1.00
44/0411-20-*	.750	.750	.375	1.25	.185	.185	1.00
44/0411-18-*	1.00	1.00	.500	1.50	.250	.250	1.00
44/0411-16-*	1.00	1.00	.500	1.50	.250	.250	1.00
44/0411-14-*	1.50	1.50	.750	1.75	.500	.500	3.00
44/0411-12-*	2.00	2.00	1.00	2.50	.500	.500	3.00
44/0411-10-*	3.00	6.00	1.00	3.00	2.00	2.00	5.00

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice. Tyco Electronics Corporation also reserves the right to make changes in materials or processing, which do not affect compliance with any specification, without notification to Buyer.

1/ COLORS AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681. OTHER CODES AND SUFFIXES MAY BE ADDED TO THE PART NUMBER, AS NECESSARY, TO CAPTURE ANY ADDITIONAL REQUIREMENTS IMPOSED BY THE PURCHASE ORDER.

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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 Wire & Cable  
501 Oakside Avenue  
Redwood City, CA 94063-3800  
Phone: 1-800-227-8816  
Fax: 1-650-361-6297

**WIRE RATINGS AND ADDITIONAL REQUIREMENTS**

TEMPERATURE RATING: 135°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

ACCELERATED AGING: 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 COLOR 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, AWG 26-12, 2500 lbf/in<sup>2</sup> (minimum)

AWG 10, 2000 lbf/in<sup>2</sup> (minimum)

INSULATION FLAWS:

Primary Insulation,

Spark Test, 1.5 kV (rms)

Impulse Dielectric Test, 6.0 kV (peak)

Finished Wire,

Spark Test, 3.0 kV (rms) at 3 kHz

Impulse Dielectric Test, 8.0 kV (peak)

INSULATION RESISTANCE: 5000 megohms for 1000 ft. (minimum)

LIFE CYCLE: 200 ± 2°C for 120 hours

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

RADIATION RESISTANCE: 500 megarads

SHRINKAGE: 225 ± 2°C,

AWG 26-12, 0.125 in. (maximum) in 12 inches

AWG 10, 0.250 in. (maximum) in 12 inches

SMOKE TEST: 165 ± 2°C, no visible smoke.

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

THERMAL SHOCK RESISTANCE: 135 ± 2°C, 0.060 in. (maximum)

VACUUM STABILITY:

Total Mass Loss (TML), 1.00% (maximum)

Volatile Condensable Material (VCM), 0.10% (maximum)

VOLTAGE WITHSTAND (Post Environmental):

2500 volts (rms), 60 Hz, 5 minutes; except for the following

AWG 26-24 Life Cycle only: 600 volts (rms), 60 Hz, 5 minutes

WICKING: 2.25 in. (maximum)

PART NUMBER: The "\*" in the part numbers on page 1 shall be replaced by color code designators.

1/ Example: AWG 20, white: 44/0411-20-9

AWG 20, white with black stripe: 44/0411-20-90

1/ See footer section on page 1