

# SPECIFICATION CONTROL DRAWING

**55A0711**

TITLE	WIRE, RADIATION-CROSSLINKED, MODIFIED ETFE-INSULATED, HEAVY DUTY, GENERAL PURPOSE, 1000 VOLT	Date	6-17-08	Revision	C
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This specification sheet forms a part of the latest issue of Raychem Specification 55A.

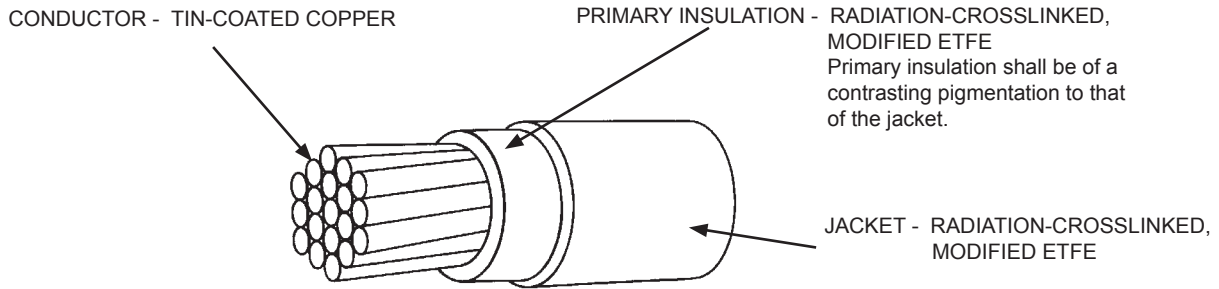


TABLE I. CONSTRUCTION DETAILS

PART NUMBER 1/	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	DIAMETER OF STRANDED CONDUCTOR (in.)		FINISHED WIRE		
			MINIMUM	MAXIMUM	MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft.)	DIAMETER (in.)	MAXIMUM WEIGHT (lbs/1000 ft.)
55A0711-24-*	24	19 x 36	.023	.025	26.2	.056 ± .003	3.7
55A0711-22-*	22	19 x 34	.029	.031	16.2	.062 ± .003	4.9
55A0711-20-*	20	19 x 32	.037	.039	9.88	.070 ± .003	5.9
55A0711-18-*	18	19 x 30	.046	.049	6.23	.080 ± .004	8.6
55A0711-16-*	16	19 x 29	.052	.055	4.81	.087 ± .004	10.5
55A0711-14-*	14	19 x 27	.065	.069	3.06	.103 ± .004	15.3
55A0711-12-*	12	37 x 28	.084	.089	2.02	.120 ± .006	22.6
55A0711-10-*	10	37 x 26	.106	.113	1.26	.144 ± .006	34.6
55A0711- 8-*	8	133 x 29	.158	.173	.701	.205 ± .008	63.6

TABLE II. PERFORMANCE DETAILS

PART NUMBER 1/	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
55A0711-24-*	1.00	1.25	2.00	4.00
55A0711-22-*	1.00	1.25	2.00	4.00
55A0711-20-*	1.00	1.25	3.00	5.00
55A0711-18-*	1.00	1.25	3.00	5.00
55A0711-16-*	1.25	1.50	3.50	5.50
55A0711-14-*	1.25	1.50	3.50	5.50
55A0711-12-*	2.00	3.00	4.00	6.00
55A0711-10-*	2.00	3.00	4.00	6.00
55A0711- 8-*	4.00	5.00	4.00	8.00

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice. Tyco Electronics 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.

Page 1 of 2	The TE logo, Tyco Electronics and Raychem are trademarks.		Raychem Wire & Cable 501 Oaks Avenue Redwood City, CA 94063-3800 Phone: 1-800-227-8816 Fax: 1-650-361-6297
	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.		

**WIRE RATINGS AND ADDITIONAL REQUIREMENTS**

TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

VOLTAGE RATING: 1000 volts (rms) at sea level

ACCELERATED AGING (CROSSLINKING PROOF): 300 ± 3°C for 7 hours

BLOCKING: 200 ± 3°C for 24 hours

COLOR: White preferred

CONCENTRICITY: 70% (minimum)

FLAMMABILITY: Procedure 1, 3 seconds (maximum); 3 inches (maximum); no flaming of facial tissue

HUMIDITY RESISTANCE: Insulation Resistance,

5000 megohms for 1000 ft. (minimum), AWG 24 - 10

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

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:

Total Insulation (primary insulation and jacket)

Elongation, 50% (minimum)

Tensile strength, 5000 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)

Impulse Dielectric Test, 8.0 kV (peak)

INSULATION RESISTANCE:

5000 megohms for 1000 ft. (minimum), AWG 24 - 10

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

INSULATION THICKNESS: 0.014 in. (minimum) for total insulation

LIFE CYCLE: 200 ± 3°C for 500 hours

LOW TEMPERATURE-COLD BEND: -65 ± 3°C for 4 hours

SHRINKAGE: 200 ± 3°C for 6 hours, 0.125 in. (maximum) in 12 inches

SMOKE TEST: 200 ± 2°C, no visible smoke

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

THERMAL SHOCK RESISTANCE: 150 ± 3°C

0.060 in. (maximum) for AWG 24 - 12

0.100 in. (maximum) for AWG 10 - 8

VOLTAGE WITHSTAND TEST (Post Environmental): 2500 volts (rms), 60 Hz

PART NUMBER:

The "\*" in the part numbers on page 1 shall be replaced by a color code designator.

1/ Example: AWG 22, white; 55A0711-22-9

AWG 22, white with a black stripe; 55A0711-22-90

1/ See footer section on page 1