

# SPECIFICATION CONTROL DRAWING

SCD

**55A0811**

Title WIRE, RADIATION-CROSSLINKED, MODIFIED ETFE-INSULATED,  
NORMAL WEIGHT, GENERAL PURPOSE, 600 VOLT

Date 4-27-15

Revision Z

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 (inch)		FINISHED WIRE		
			MINIMUM	MAXIMUM	MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft.)	DIAMETER (inch)	MAXIMUM WEIGHT (lbs/1000 ft.)
55A0811-28-*	28	7 x 36	.014	.016	68.6	.035 ± .002	1.3
55A0811-26-*	26	19 x 38	.018	.020	41.3	.040 ± .002	1.7
55A0811-24-*	24	19 x 36	.023	.025	26.2	.045 ± .002	2.3
55A0811-22-*	22	19 x 34	.029	.031	16.2	.050 ± .002	3.2
55A0811-20-*	20	19 x 32	.037	.039	9.88	.058 ± .002	4.7
55A0811-18-*	18	19 x 30	.046	.049	6.23	.070 ± .003	7.2
55A0811-16-*	16	19 x 29	.052	.055	4.81	.077 ± .003	9.0
55A0811-14-*	14	19 x 27	.065	.069	3.06	.094 ± .003	13.8
55A0811-12-*	12	37 x 28	.084	.089	2.02	.111 ± .003	20.5
55A0811-10-*	10	37 x 26	.106	.113	1.26	.134 ± .004	32.4
55A0811-8-*	8	133 x 29	.158	.173	.701	.195 ± .008	60.3
55A0811-6-*	6	133 x 27	.198	.217	.445	.241 ± .010	94.5
55A0811-4-*	4	133 x 25	.250	.274	.280	.310 ± .010	150.
55A0811-2-*	2	665 x 30	.320	.340	.183	.408 ± .012	249.
55A0811-1-*	1	817 x 30	.360	.380	.149	.470 ± .012	325.
55A0811-0-*	0	1045 x 30	.395	.425	.116	.510 ± .016	383.
55A0811-00-*	00	1330 x 30	.440	.475	.091	.570 ± .016	500.
55A0811-000-*	000	1665 x 30	.500	.540	.071	.610 ± .016	596.
55A0811-0000-*	0000	2109 x 30	.565	.605	.056	.675 ± .022	753.

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

**TABLE II. PERFORMANCE DETAILS**

PART NUMBER 1/	MANDREL DIAMETER (inch) (± 3%)		WEIGHT (lb) (± 3%)	
	LIFE CYCLE, IMMERSION, AND ACCELERATED AGING	COLD BEND	LIFE CYCLE, IMMERSION, AND ACCELERATED AGING	COLD BEND
55A0811-28-*	.375	.750	.250	2.00
55A0811-26-*	.375	1.00	.500	3.00
55A0811-24-*	.500	1.00	.750	3.00
55A0811-22-*	.500	1.00	1.00	3.00
55A0811-20-*	.500	1.00	1.50	4.00
55A0811-18-*	.750	1.50	2.00	4.00
55A0811-16-*	1.00	1.50	2.00	5.00
55A0811-14-*	1.00	2.00	3.00	5.00
55A0811-12-*	1.50	2.00	3.00	5.00
55A0811-10-*	2.00	3.00	3.00	5.00
55A0811-8-*	3.00	4.00	4.00	6.00
55A0811-6-*	4.00	5.00	4.00	10.0
55A0811-4-*	5.00	6.00	4.00	10.0
55A0811-2-*	6.00	8.00	6.00	15.0
55A0811-1-*	8.00	10.0	6.00	15.0
55A0811-0-*	8.00	10.0	6.00	15.0
55A0811-00-*	10.0	12.0	8.00	20.0
55A0811-000-*	10.0	12.0	8.00	20.0
55A0811-0000-*	10.0	12.0	8.00	20.0

**WIRE RATINGS AND ADDITIONAL REQUIREMENTS**

**TEMPERATURE RATING:** 150°C

Maximum continuous conductor temperature

**VOLTAGE RATING:** 600 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 28-10

3000 megohms for 1000 ft. (minimum), AWG 8-0000

**IDENTIFICATION, COLOR STRIPING, AND 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:**

Elongation,

125% (minimum) for primary insulation, AWG 28-10 only

75% (minimum) for total insulation (primary insulation & jacket)

Tensile Strength,

5000 lbf/in<sup>2</sup> (minimum) for primary insulation

5000 lbf/in<sup>2</sup> (minimum) for total insulation (primary insulation & jacket)

**INSULATION FLAWS:**

Primary Insulation,

Spark Test, 1.5 kV (rms) at 60 Hz; 4.2 kV (rms) at 3 kHz

Impulse Dielectric Test, 6.0 kV (peak)

Finished Wire,

Spark Test, 5.7 kV (rms) at 3 kHz

Impulse Dielectric Test, 8.0 kV (peak)

**INSULATION RESISTANCE:**

5000 megohms for 1000 ft. (minimum), AWG 28-10

3000 megohms for 1000 ft. (minimum), AWG 8-0000

**INSULATION THICKNESS:**

0.003 in. (minimum) for primary insulation

0.004 in. (minimum) for outer jacket

0.009 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

**SOLDERABILITY (AWG 10 and smaller only):**

Per MIL-STD-202, Method 208, except without steam aging

**SURFACE RESISTANCE:**

500 megohms-in. (minimum), both readings

**THERMAL SHOCK RESISTANCE:** 150 ± 3°C,

0.060 in. (maximum), AWG 28-12

0.100 in. (maximum), AWG 10-8

0.125 in. (maximum), AWG 6-0000

**VOLTAGE WITHSTAND (Post Environmental):**

2500 volts (rms), 60 Hz

**WICKING:** 2.25 in. (maximum)

**WRAP TEST:** 200 ± 3°C for 2 hours

**1/ PART NUMBER:**

The "\*" in the part numbers in Tables I and II shall be replaced by a color code designator.

Example: AWG 22, white: 55A0811-22-9

AWG 22, white with a black stripe: 55A0811-22-90

1/ See footer section on page 1



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.