

# SPECIFICATION CONTROL DRAWING

55FA0411

TITLE CABLE, ELECTRIC, FILTER LINE - ELECTROLOSS\*  
COMPONENT WIRE

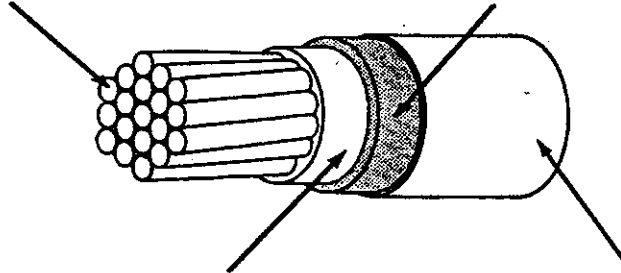
Date 3-20-90

Revision P

This specification sheet forms a part of the latest issue of Raychem Specification 55F.

CONDUCTOR - TIN-COATED COPPER

FILTER LAYER - RADIATION-MODIFIED,  
ABSORPTIVE COMPOUND



PRIMARY INSULATION - RADIATION-CROSSLINKED,  
MODIFIED ETFE  
COLOR - WHITE

PRIMARY JACKET - RADIATION-CROSSLINKED,  
MODIFIED ETFE

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 (lb/1000 ft)
55FA0411-22-*	22	19 x 34	.029	.033	16.2	.062 ± .004	5.1
55FA0411-20-*	20	19 x 32	.037	.041	9.88	.070 ± .004	7.0
55FA0411-18-*	18	19 x 30	.046	.051	6.23	.080 ± .004	9.7
55FA0411-16-*	16	19 x 29	.052	.058	4.81	.086 ± .004	11.7
55FA0411-14-*	14	19 x 27	.065	.073	3.06	.100 ± .004	16.6
55FA0411-12-*	12	37 x 28	.084	.090	2.02	.127 ± .004	26.1
55FA0411-10-*	10	37 x 26	.106	.114	1.28	.151 ± .005	39.1
55FA0411-8-*	8	133 x 29	.158	.173	.701	.227 ± .007	80.6

TABLE II. PERFORMANCE DETAILS

PART NUMBER	BEND TESTING			
	MANDREL DIAMETER (Inch) (± 3%)		WEIGHT (lb) (± 3%)	
	LIFE CYCLE, IMMERSION AND CROSSLINKING PROOF TEST	COLD BEND	LIFE CYCLE, IMMERSION AND CROSSLINKING PROOF TEST	COLD BEND
55FA0411-22-*	.500	1.00	.750	3.00
55FA0411-20-*	.750	1.00	1.25	4.00
55FA0411-18-*	1.00	1.50	1.75	4.00
55FA0411-16-*	1.00	1.50	2.00	5.00
55FA0411-14-*	1.00	1.50	2.00	5.00
55FA0411-12-*	1.50	3.00	2.50	5.00
55FA0411-10-*	1.50	3.00	2.50	5.00
55FA0411-8-*	3.00	12.0	3.00	6.00

\*Raychem Trademark

COLORS AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-881.

DIMENSIONS ARE IN INCHES, AND UNLESS OTHERWISE DESIGNATED ARE NOMINAL.

**Raychem**

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**WIRE RATINGS AND ADDITIONAL REQUIREMENTS**

**TEMPERATURE RATING:** 150°C

Maximum continuous conductor temperature

**VOLTAGE RATING:** 600 volts (rms) at sea level

**ATTENUATION (INSERTION LOSS):** See Page 3

**BLOCKING:** 200 ± 3°C for 6 hours

**COLOR:** Light violet preferred

**COLOR STRIPING DURABILITY:** 125 cycles (250 strokes) (minimum), 500 g weight

**CONCENTRICITY:** Primary Insulation - 50% (minimum); Finished Wire - 70% (minimum)

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

**FLAMMABILITY:** 3 seconds (maximum); 3 in. (maximum); no flaming of facial tissue

**HUMIDITY RESISTANCE:** Insulation Resistance, 5000 megohms for 1000 ft. (minimum)

**IDENTIFICATION 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, Filter Layer and Primary Jacket pulled together

Elongation, 50% (minimum)

Tensile Strength, 3000 lbf/in<sup>2</sup> (minimum)

**INSULATION FLAWS:**

Primary Insulation only

Spark Test, 2.5 kV (rms), 60 Hz

Impulse Dielectric Test, 6.0 kV (peak)

Finished Wire

Spark Test, 3.0 kV (rms), 60 Hz

Impulse Dielectric Test, 8.0 kV (peak)

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

**INSULATION THICKNESS:**

Primary Insulation, .003 in. (minimum)

Filter Layer, average .003 in. (minimum)

Primary Jacket, .0035 in. (minimum)

**LIFE CYCLE:** 200 ± 3°C for 168 hours

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

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

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

**SURFACE RESISTANCE:** 500 megohms-in. (minimum) initial and final readings

**THERMAL SHOCK RESISTANCE:** 150 ± 3°C, .060 in. (maximum)

**VOLTAGE WITHSTAND (POST-ENVIRONMENTAL):** (After Crosslinking Proof Test, Immersion, Life Cycle and Low Temperature-Cold Bend)

1500 volts (rms), 60 Hz

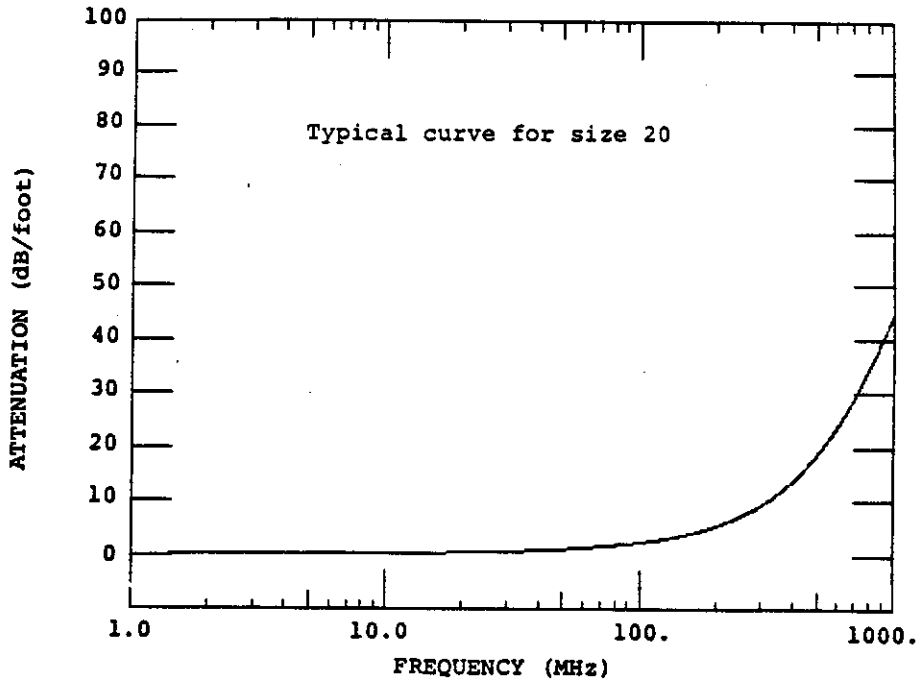
**WRAP TEST:** 6 hours at 200 ± 3°C, no cracking

**PART NUMBER:**

The \*\*\* in the part number above shall be replaced by color code designators. Violet shall be light violet and the designator shall be 7L.

Example: AWG 22, light violet: 55FA0411-22-7L

AWG 22, light violet with blue stripe: 55FA0411-22-7L6



Attenuation (insertion loss)\*

Attenuation (insertion loss)\*

Part no.	Pass band (dB/ft)			Transition band (dB/ft)			Stop band (dB/ft)
	1.0 MHz	10.0 MHz		100 MHz	500 MHz	1000 MHz	1 to 12 GHz
	(max)	(min)	(max)	(min)	(min)	(min)	(min)
55FA0411-22	.015	.04	0.10	1.3	12	30	30
55FA0411-20	.015	.04	0.10	1.3	12	30	30
55FA0411-18	.015	.04	0.10	1.3	13	33	33
55FA0411-16	.015	.04	0.10	1.3	13	33	33
55FA0411-14	.015	.04	0.10	1.3	13	33	33
55FA0411-12	.015	.02	0.10	1.3	12	30	30
55FA0411-10	.015	.02	0.10	1.3	12	30	30
55FA0411- 8-*	TBD	TBD	TBD	TBD	TBD	TBD	TBD

\*THE PRIMARY WIRE OF THIS SPECIFICATION SHEET SHALL MEET THE ATTENUATION REQUIREMENTS SHOWN ABOVE ONLY WHEN USED AS A SINGLE COMPONENT IN A SHIELDED CABLE.



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.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- 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

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