SPECIFICATION CONTROL DRAWING

55FA0512

TITLE	Date	Revision
CABLE, ELECTRIC, FILTER LINE - ELECTROLOSS™ COMPONENT WIRE	2-5-97	C

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

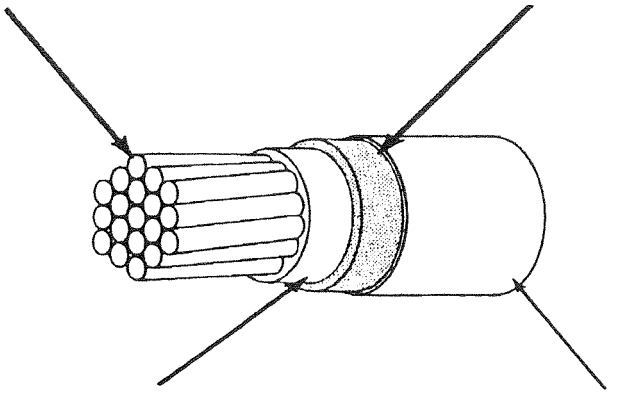

TABLE I. CONSTRUCTION DETAILS

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/1000 ft)	DIAMETER (in.)	MAXIMUM WEIGHT (lb/1000 ft)
55FA0512-22-*	22	19 x 34	.029	.032	15.1	.051 ± .003	4.0
55FA0512-20-*	20	19 x 32	.037	.040	9.19	.059 ± .003	5.8
55FA0512-18-*	18	19 x 30	.046	.050	5.79	.070 ± .003	8.7
55FA0512-16-*	16	19 x 29	.052	.057	4.52	.078 ± .004	11.2
55FA0512-14-*	14	19 x 27	.065	.072	2.88	.095 ± .004	16.1
55FA0512-12-*	12	37 x 28	.084	.089	1.90	.112 ± .004	24.0
55FA0512-10-*	10	37 x 26	.106	.112	1.19	.136 ± .005	37.0

TABLE II. PERFORMANCE DETAILS

PART NUMBER	BEND TESTING			
	MANDREL DIAMETER (inch) (± 3%)		WEIGHT (lb) (± 3%)	
	IMMERSION, LIFE CYCLE AND CROSSLINKING PROOF TEST	COLD BEND	IMMERSION, LIFE CYCLE AND CROSSLINKING PROOF TEST	COLD BEND
55FA0512-22-*	.500	2.00	.750	3.00
55FA0512-20-*	.750	2.50	1.25	4.00
55FA0512-18-*	1.00	3.00	1.75	4.00
55FA0512-16-*	1.00	3.00	2.00	5.00
55FA0512-14-*	1.00	5.00	2.00	5.00
55FA0512-12-*	1.50	6.00	2.50	5.00
55FA0512-10-*	1.50	8.00	2.50	5.00

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

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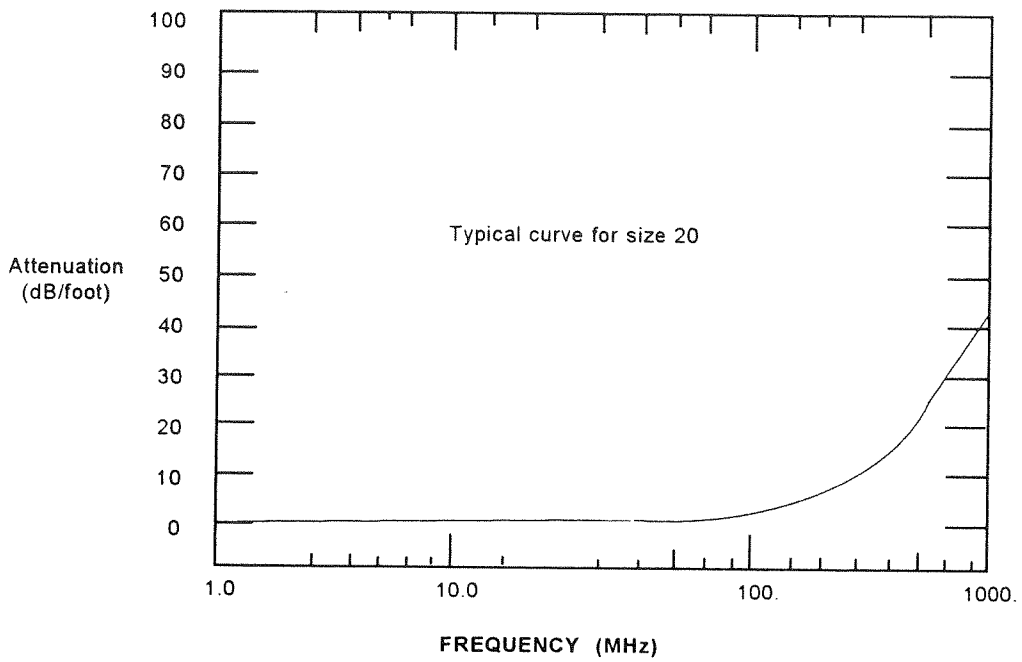
WIRE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 200°C
Maximum continuous conductor temperature
VOLTAGE RATING: 600 volts (rms) at sea level
ACCELERATED AGING (CROSSLINKING PROOF TEST): 300 ± 3°C for 7 hours
ATTENUATION (INSERTION LOSS): See page 3
BLOCKING: 230 ± 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)
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^2 (minumum)
INSULATION FLAWS: Primary Insulation only
Spark Test, 1.5 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)
INSULATON RESISTANCE: 5000 meghoms for 1000 ft (minumum)
INSULATION THICKNESS: Primary Insulation, .002 in. (minimum); Filter layer, average .0025 in.(minimum); Primary Jacket, .0035 in. (minimum)
LIFE CYCLE: 230 ± 3°C for 500 hours
LOW TEMPERATURE-COLD BEND: -65 ± 2°C for 4 hours
SHRINKAGE: 200 ± 3°C for 6 hours, 0.125 in. (maximum)
SMOKE TEST: 200 ± 2°C, no visible smoke
SURFACE RESISTANCE: 500 meghoms-in.(minimum), initial and final readings
THERMAL-SHOCK RESISTANCE: 200 ± 3°C, .060 in. (maximum)
VOLTAGE WITHSTAND (POST-ENVIRONMENTAL): (After Accelerated Aging, Immersion, Life Cycle and Low Temperature-Cold Bend) 1500 volts (rms), 60 Hz
WRAP TEST: 200 ± 3°C for 6 hours, no cracking

PART NUMBER:
The "*" in the part numbers on page 1 shall be replaced by color code designators, except that violet shall be light violet and designators shall be 7L.
Example: AWG 22, light violet: 55FA0512-22-7L
AWG 22, light violet with blue stripe: 55FA0512-22-7L6



Attenuation (insertion loss) *

Attenuation (insertion loss) *

PART NUMBER	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)
55FA0512-22	.02	.06	0.20	1.3	12	30	30
55FA0512-20	.02	.06	0.20	1.3	12	30	30
55FA0512-18	.02	.06	0.20	1.3	13	33	33
55FA0512-16	.02	.06	0.20	1.3	13	33	33
55FA0512-14	.02	.06	0.20	1.3	13	33	33
55FA0512-12	.02	.04	0.20	1.3	12	30	30
55FA0512-10	.02	.04	0.20	1.3	12	30	30

* 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