

SPECIFICATION CONTROL DRAWING

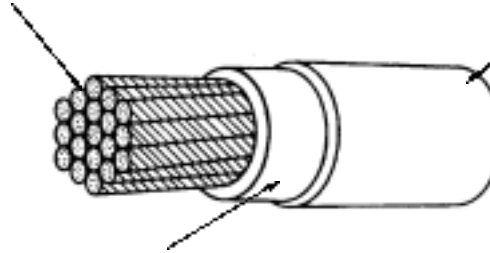
82A0811

TITLE	WIRE, ELECTRIC, RADIATION-CROSSLINKED, MODIFIED FLEXIBLE ETFE-INSULATED, GENERAL PURPOSE	Date	3-22-99	Revision	E
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This specification sheet forms a part of the latest of Raychem Specification 80.

CONDUCTOR - TIN-COATED COPPER

JACKET - RADIATION-CROSSLINKED, MODIFIED FLEXIBLE ETFE



PRIMARY INSULATION - RADIATION-CROSSLINKED, MODIFIED FLEXIBLE ETFE
COLOR - LIGHT GREEN

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 (lbs/1000 ft.)
82A0811-24-*	24	105 x 44	.023	.027	28.2	.044 ± .003	2.5
82A0811-22-*	22	154 x 44	.029	.033	19.7	.054 ± .003	3.7
82A0811-20-*	20	154 x 42	.037	.043	12.1	.064 ± .004	5.2
82A0811-18-*	18	259 x 42	.047	.053	7.35	.076 ± .004	8.0
82A0811-16-*	16	259 x 40	.061	.067	4.53	.092 ± .005	11.9
82A0811-14-*	14	665 x 42	.078	.086	2.96	.116 ± .005	19.3
82A0811-12-*	12	665 x 40	.096	.106	1.89	.137 ± .006	27.9
82A0811-10-*	10	665 x 38	.126	.140	1.12	.187 ± .008	50.0
82A0811- 8-*	8	665 x 36	.157	.173	.714	.230 ± .008	77.3
82A0811- 6-*	6	1045 x 36	.192	.208	.490	.277 ± .010	118.
82A0811- 4-*	4	1665 x 36	.265	.285	.326	.359 ± .010	189.
82A0811- 2-*	2	1665 x 34	.325	.345	.204	.433 ± .016	282.
82A0811- 1-*	1	2109 x 34	.370	.400	.163	.488 ± .016	348.
82A0811- 0-*	0	2660 x 34	.435	.465	.133	.558 ± .016	442.
82A0811-00-*	00	3325 x 34	.485	.515	.102	.612 ± .016	544.

TABLE II. PERFORMANCE DETAILS

PART NUMBER	BEND TESTING	
	MANDREL DIAMETER (inch) (±3%)	WEIGHT (lb) (± 3%)
	CROSSLINKING PROOF TEST	CROSSLINKING PROOF TEST
82A0811-24-*	.500	.750
82A0811-22-*	.500	1.00
82A0811-20-*	.500	1.50
82A0811-18-*	.750	2.00
82A0811-16-*	1.00	2.00
82A0811-14-*	1.00	3.00
82A0811-12-*	1.50	3.00
82A0811-10-*	2.00	3.00
82A0811- 8-*	3.00	4.00
82A0811- 6-*	4.00	4.00
82A0811- 4-*	5.00	4.00
82A0811- 2-*	6.00	6.00
82A0811- 1-*	8.00	6.00
82A0811- 0-*	8.00	6.00
82A0811-00-*	10.0	8.00

NOTE: Nominal values are for information only.
Nominal values are not requirements.

COLORS AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681.

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

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WIRE RATINGS AND ADDITIONAL REQUIREMENTS**TEMPERATURE RATING: 150°C**

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms)**CONCENTRICITY: 70% (minimum)****CROSSLINKING PROOF TEST: 300 ± 3°C for 7 hours****IDENTIFICATION AND COLOR STRIPING DURABILITY:**

125 cycles (250 strokes) (minimum); 500 g weight

INSULATION ELONGATION AND TENSILE STRENGTH:

Elongation, AWG's 24 - 10, 75% (minimum)

AWG's 8 - 00, 125% (minimum)

Tensile Strength, AWG's 24 - 10, 3500 lbf/in² (minimum)AWG's 8 - 00, 3000 lbf/in² (minimum)**INSULATION FLAWS:**

Primary Insulation,

Impulse Dielectric Test, 6.0 kV (peak)

Finished Wire,

Impulse Dielectric Test, 8.0 kV (peak)

INSULATION THICKNESS:

For AWG 24 - 18, .004 in. (minimum) for primary insulation

.004 in. (minimum) for outer jacket

For AWG 16 - 10, .005 inch (minimum) for primary insulation

.005 inch (minimum) for outer jacket

For AWG 8 - 4, .008 in. (minimum) for primary insulation

.012 in. (minimum) for outer jacket

For AWG 2 - 00, .010 in. (minimum) for primary insulation

.015 in. (minimum) for outer jacket

JACKET COLOR: White preferred**PRODUCT IDENTIFICATION: AWG 24 - 10, black ink**

AWG 8 and larger, black ink preferred

SHRINKAGE: 150 ± 3°C for 6 hours,

AWG 24 - 10, 0.13 inch (maximum) in 12 inches

AWG 8 - 00, 0.25 inch (maximum) in 12 inches

VOLTAGE WITHSTAND TEST (POST ENVIRONMENTAL):

2500 volts (rms), 60 Hz

PART NUMBER:

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

Example: AWG 8, white: 82A0811-8-9

AWG 8, white with black stripe: 82A0811-8-90