

SPECIFICATION CONTROL DRAWING

82A6068

TITLE	WIRE, RADIATION-CROSSLINKED, MODIFIED FLEXIBLE ETFE-INSULATED, NORMAL WEIGHT, GENERAL PURPOSE, 1000 VOLT	Date	12-4-12	Revision	C
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This specification sheet forms a part of the latest issue of Raychem Specification 80.

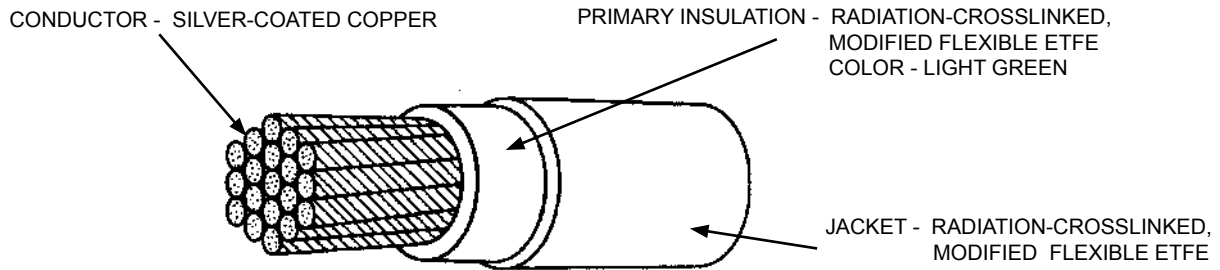


TABLE I. CONSTRUCTION DETAILS

PART NUMBER <i>1/</i>	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.)
82A6068-16-*	16	259 x 40	.061	.067	4.62	.148 ± .008	22.0
82A6068-12-*	12	665 x 40	.096	.106	1.89	.185 ± .008	39.6
82A6068-10-*	10	665 x 38	.126	.140	1.12	.217 ± .008	59.1
82A6068-8-*	8	665 x 36	.157	.173	.714	.249 ± .008	84.1
82A6068-6-*	6	1045 x 36	.192	.208	.490	.284 ± .010	121.
82A6068-4-*	4	1665 x 36	.265	.285	.326	.359 ± .010	190.

TABLE II. PERFORMANCE DETAILS

PART NUMBER <i>1/</i>	BEND TESTING	
	MANDREL DIAMETER (inch) (± 3%)	WEIGHT (lb) (± 3%)
	CROSSLINKING PROOF TEST	CROSSLINKING PROOF TEST
82A6068-16-*	1.50	3.00
82A6068-12-*	2.00	3.00
82A6068-10-*	3.00	4.00
82A6068-8-*	3.00	4.00
82A6068-6-*	4.00	4.00
82A6068-4-*	5.00	4.00

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.



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

Maximum continuous conductor temperature

VOLTAGE RATING: 1000 volts (rms) at 150°C and 15,000 ft. (maximum)**CONCENTRICITY:** 70% (minimum)**CROSSLINKING PROOF TEST:**

AWG 16: 300 ± 3°C for 30 minutes

AWG 12-4: 300 ± 3°C for 1 hour

IDENTIFICATION AND COLOR STRIPING DURABILITY: 125 cycles (250 strokes) (minimum), 500 g weight**INSULATION ELONGATION AND TENSILE STRENGTH:**

AWG 16-10: Elongation, 75% (minimum)

Tensile Strength, 3500 lbf/in² (minimum)

AWG 8-4: Elongation, 125% (minimum)

Tensile Strength, 3000 lbf/in² (minimum)**INSULATION FLAWS:**

Primary Insulation,

Spark Test, 1.5 kV (rms) at 3 kHz

Impulse Dielectric Test, 6.0 kV (peak)

Finished Wire,

Spark Test, 3.0 kV (rms) at 3 kHz

Impulse Dielectric Test, 8.0 kV (peak)

INSULATION THICKNESS:

.010 in. (minimum) for primary insulation

.012 in. (minimum) for outer jacket

JACKET COLOR: White preferred**PRODUCT IDENTIFICATION:** AWG 16-10, black ink only

AWG 8-4, black ink preferred

SECANT MODULUS: (Test per ASTM D 882)AWG 16-10: 5.0 x 10⁴ lbf/in² (maximum)AWG 8 and larger: 4.0 x 10⁴ lbf/in² (maximum)

2% strain, 2 inch jaw separation, 0.2 inch/minute

SHRINKAGE: 200 ± 3°C for 6 hours,

AWG 16-10: 0.13 in. (maximum) in 12 inches

AWG 8-4: 0.25 in. (maximum) in 12 inches

VOLTAGE WITHSTAND (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 12, white; 82A6068-12-9

AWG 12, white with a black stripe; 82A6068-12-90

1/ See footer section on page 1