

SPECIFICATION CONTROL DRAWING

82/0111

TITLE WIRE, OUTER SPACE, RADIATION-CROSSLINKED, MODIFIED FLUOROPOLYMER-INSULATED, TIN-COATED COPPER, LIGHTWEIGHT, FLEXIBLE

Date 04-14-03

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This specification sheet forms a part of the latest issue of Raychem Specification 80.

CONDUCTOR - TIN-COATED COPPER

INSULATION - RADIATION-CROSSLINKED, MODIFIED FLEXIBLE ETFE

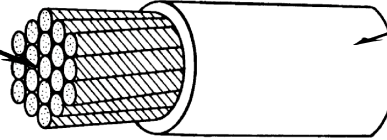


TABLE I. CONSTRUCTION DETAILS

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/1000 ft.)	DIAMETER (inches)	MAXIMUM WEIGHT (lb/1000 ft)
82/0111-26-*	26	63 X 44	.017	.021	43.5	.033 ± .003	1.4
82/0111-24-*	24	105 X 44	.023	.027	28.2	.037 ± .003	2.1
82/0111-22-*	22	154 X 44	.029	.033	19.2	.043 ± .003	2.9
82/0111-20-*	20	154 X 42	.037	.043	11.7	.053 ± .004	4.2
82/0111-18-*	18	259 X 42	.047	.053	7.14	.064 ± .004	6.7
82/0111-16-*	16	259 X 40	.061	.067	4.53	.079 ± .005	10.1

TABLE II. PERFORMANCE DETAILS

PART NUMBER	BEND TESTING	
	MANDREL DIAMETER (in.) (±3%)	WEIGHT (lb) (±3%)
	CROSSLINKING PROOF	CROSSLINKING PROOF
82/0111-26-*	.375	.125
82/0111-24-*	.375	.250
82/0111-22-*	.500	.375
82/0111-20-*	.500	.500
82/0111-18-*	.500	.500
82/0111-16-*	.750	.750

WIRE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms)

COLOR: White preferred

CROSSLINKING PROOF TEST: 300 ± 3° for 7 hours

IDENTIFICATION AND COLOR STRIPING DURABILITY:

125 cycles (250 strokes) (minimum), 500 gram weight

INSULATION ELONGATION AND TENSILE STRENGTH:

AWG 26, Elongation, 75% (minimum)

Tensile Strength, 3000 lbf/in² (minimum)

AWG 24 - 16, Elongation, 75% (minimum)

Tensile Strength, 3500 lbf/in² (minimum)

INSULATION FLAWS:

Impulse Dielectric Test, 6.0 kV (peak)

INSULATION THICKNESS: .004 in. (minimum)

CONCENTRICITY: 70% (minimum)

PRODUCT IDENTIFICATION: Black ink only

RADIATION RESISTANCE (Test per Raychem Spec. 55/): 500 megarads

SHRINKAGE: 150 ± 3°C for 6 hours, 0.13 inch (maximum) in 12 inches

VACUUM STABILITY (Test per ASTM E 595):

Total Mass Loss (TML), 1.0% (maximum)

Volatile Condensable Material (VCM), 0.1% (maximum)

VOLTAGE WITHSTAND TEST (POST ENVIRONMENTAL):

2500 volts (rms), 60 Hz

PART NUMBER:

The "*" in the part numbers above shall be replaced by color code designators.

Example: AWG 22, white: 82/0111-22-9

AWG 22, white with black stripe: 82/0111-22-90

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice.

Tyco Electronics 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. HOWEVER, DUE TO LENGTH LIMITATIONS OF THE RAYCHEM PART NUMBER, AN ALTERNATIVE COLOR CODE MAY REPLACE MIL-STD-681 COLOR CODE DESIGNATORS. (EXAMPLE: "901/902..." MAY BE REPLACED BY "Axxx".) OTHER CODES AND SUFFIXES MAY BE ADDED TO THE PART NUMBER, AS NECESSARY, TO CAPTURE ANY ADDITIONAL REQUIREMENTS IMPOSED BY THE PURCHASE ORDER.

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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