SPECIFICATION CONTROL DRAWING

82/0112

TITLE	Date	Revision
WIRE, RADIATION-CROSSLINKED, MODIFIED FLEXIBLE ETFE-INSULATED, LIGHTWEIGHT, OUTER SPACE, 600 VOLT	1-6-11	C

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

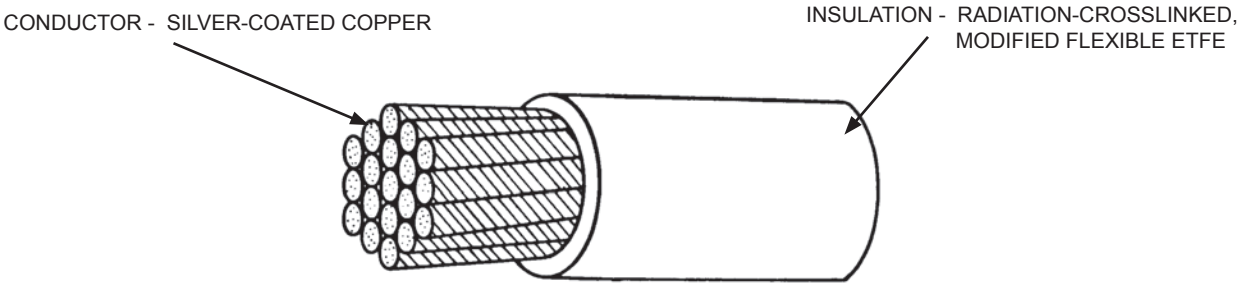

TABLE I. CONSTRUCTION DETAILS

PART NUMBER 1/	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.)
82/0112-28-*	28	42 x 44	.013	.017	75.5	.029 ± .003	1.2
82/0112-26-*	26	63 x 44	.017	.021	46.9	.033 ± .003	1.4
82/0112-24-*	24	105 x 44	.023	.027	28.2	.037 ± .003	2.1
82/0112-22-*	22	154 x 44	.029	.033	19.2	.043 ± .003	2.9
82/0112-20-*	20	154 x 42	.037	.043	11.7	.053 ± .004	4.2
82/0112-18-*	18	259 x 42	.047	.053	7.14	.064 ± .004	6.7
82/0112-16-*	16	259 x 40	.061	.067	4.62	.079 ± .004	10.2
82/0112-14-*	14	665 x 42	.078	.086	2.96	.099 ± .005	16.5
82/0112-12-*	12	665 x 40	.096	.106	1.89	.121 ± .006	24.8
82/0112-10-*	10	665 x 38	.126	.140	1.12	.157 ± .009	42.2

TABLE II. PERFORMANCE DETAILS

PART NUMBER 1/	BEND TESTING	
	MANDREL DIAMETER (inch) (± 3%)	WEIGHT (lb) (± 3%)
	CROSSLINKING PROOF TEST	CROSSLINKING PROOF TEST
82/0112-28-*	.250	.125
82/0112-26-*	.375	.125
82/0112-24-*	.375	.250
82/0112-22-*	.500	.375
82/0112-20-*	.500	.500
82/0112-18-*	.500	.500
82/0112-16-*	.750	.750
82/0112-14-*	1.00	1.00
82/0112-12-*	1.50	1.50
82/0112-10-*	2.00	1.50

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.

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: 600 volts (rms) at sea level
COLOR: White preferred
CONCENTRICITY: 70% (minimum)
CROSSLINKING PROOF TEST:
AWG 28-14: 300 ± 3°C for 30 minutes
AWG 12-10: 300 ± 3°C for 1 hour
IDENTIFICATION AND COLOR STRIPING DURABILITY:
125 cycles (250 strokes) (minimum), 500 gram weight
INSULATION ELONGATION AND TENSILE STRENGTH:
AWG 28-26: Elongation, 75% (minimum)
Tensile Strength, 3000 lbf/in² (minimum)
AWG 24-10: Elongation, 75% (minimum)
Tensile Strength, 3500 lbf/in² (minimum)
INSULATION FLAWS:
Spark Test, 1.5 kV (rms) at 3 kHz
Impulse Dielectric Test, 6.0 kV (peak)
INSULATION THICKNESS:
AWG 28-16: .004 in. (minimum)
AWG 14-10: .006 in. (minimum)
PRODUCT IDENTIFICATION: Black ink only
RADIATION RESISTANCE (Test per Raychem Spec. 55/): 500 megarads
SECANT MODULUS (Test per ASTM D 882):
5.0×10^4 lbf/in^2 (maximum) 2% strain, 2 inch jaw separation, 0.2 inch/minute
SHRINKAGE: 150 ± 3°C for 6 hours, 0.13 in. (maximum) in 12 inches
VACUUM STABILITY (Test per ASTM E 595):
Total Mass Loss (TML), 1.00% (maximum)
Volatile Condensable Material (VCM), 0.10% (maximum)
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 22, white; 82/0112-22-9
AWG 22, white with a black stripe; 82/0112-22-90

1/ See footer section on page 1