SPECIFICATION CONTROL DRAWING

SCD	400R0111

Title	Date	Revision
WIRE, RADIATION-CROSSLINKED, POLYOLEFIN-INSULATED, LIMITED FIRE HAZARD, 600 VOLT	3-8-16	B

This specification sheet forms a part of the latest issue of Raychem Specification WCD 3114.

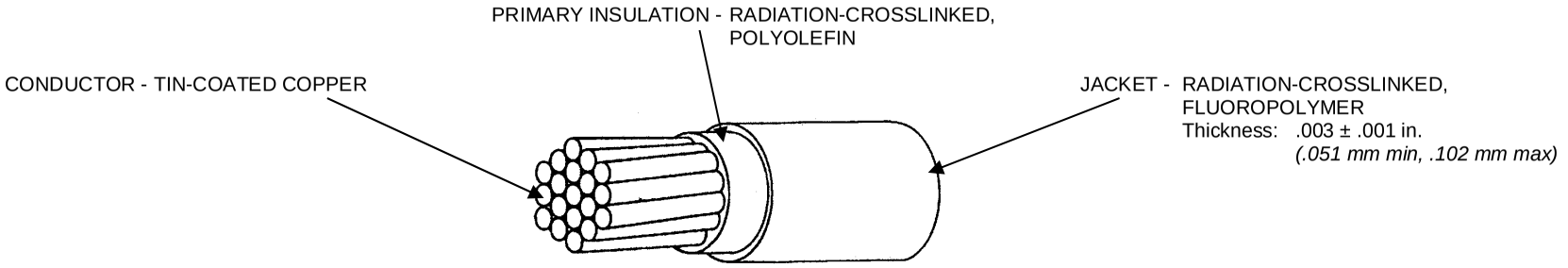

TABLE I. CONSTRUCTION DETAILS

PART NUMBER 1/	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	DIAMETER OF STRANDED CONDUCTOR (inch) *(mm)*		FINISHED WIRE			
					MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft.) *(ohms/km)*	DIAMETER (inch) *(mm)*		MAXIMUM WEIGHT (lbs/1000 ft.) *(kg/km)*
			MINIMUM	MAXIMUM		MINIMUM	MAXIMUM	
400R0111-26-*	26	19 x 38	.018 *(.457)*	.021 *(.533)*	41.3 *(135.)*	.032 *(.813)*	.036 *(.914)*	1.4 *(2.08)*
400R0111-24-*	24	19 x 36	.023 *(.584)*	.026 *(.660)*	26.2 *(86.0)*	.038 *(.965)*	.042 *(1.07)*	2.0 *(2.98)*
400R0111-22-*	22	19 x 34	.029 *(.737)*	.033 *(.838)*	16.2 *(53.1)*	.045 *(1.14)*	.049 *(1.24)*	3.0 *(4.46)*
400R0111-20-*	20	19 x 32	.037 *(.940)*	.041 *(1.04)*	9.88 *(32.4)*	.053 *(1.35)*	.057 *(1.45)*	4.5 *(6.70)*
400R0111-18-*	18	19 x 30	.046 *(1.17)*	.051 *(1.30)*	6.23 *(20.4)*	.063 *(1.60)*	.067 *(1.70)*	6.8 *(10.1)*
400R0111-16-*	16	19 x 29	.052 *(1.32)*	.058 *(1.47)*	4.81 *(15.8)*	.069 *(1.75)*	.075 *(1.91)*	8.6 *(12.8)*
400R0111-14-*	14	19 x 27	.065 *(1.65)*	.073 *(1.85)*	3.06 *(10.0)*	.085 *(2.16)*	.093 *(2.36)*	13.2 *(19.6)*
400R0111-12-*	12	37 x 28	.084 *(2.13)*	.090 *(2.29)*	2.02 *(6.63)*	.104 *(2.64)*	.112 *(2.84)*	20.2 *(30.1)*
400R0111-10-*	10	37 x 26	.106 *(2.69)*	.114 *(2.90)*	1.26 *(4.13)*	.125 *(3.18)*	.133 *(3.38)*	31.1 *(46.3)*

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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TABLE II. PERFORMANCE DETAILS				
PART NUMBER 1/	BEND TESTING			
	MANDREL DIAMETER (inch) *(mm)* (± 3%)		WEIGHT (lb) *(kg)* (± 3%)	
	ACCELERATED AGING	COLD BEND	ACCELERATED AGING	COLD BEND
400R0111-26-*	.500 *(12.7)*	.500 *(12.7)*	.250 *(.113)*	.500 *(.227)*
400R0111-24-*	.500 *(12.7)*	.500 *(12.7)*	.375 *(.170)*	.500 *(.227)*
400R0111-22-*	.750 *(19.1)*	.750 *(19.1)*	.375 *(.170)*	1.00 *(.454)*
400R0111-20-*	.750 *(19.1)*	.750 *(19.1)*	.375 *(.170)*	1.00 *(.454)*
400R0111-18-*	1.00 *(25.4)*	1.00 *(25.4)*	.500 *(.227)*	1.00 *(.454)*
400R0111-16-*	1.00 *(25.4)*	1.00 *(25.4)*	.500 *(.227)*	1.00 *(.454)*
400R0111-14-*	1.50 *(38.1)*	1.50 *(38.1)*	1.00 *(.454)*	3.00 *(1.36)*
400R0111-12-*	2.00 *(50.8)*	2.00 *(50.8)*	1.00 *(.454)*	3.00 *(1.36)*
400R0111-10-*	2.50 *(63.5)*	2.50 *(63.5)*	1.00 *(.454)*	3.00 *(1.36)*

WIRE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 125°C
Maximum continuous conductor temperature
VOLTAGE RATING: 600 volts (rms) at sea level
ACCELERATED AGING: 300 ± 2°C for 6 hours
Identification legibility, 225 ± 2°C for 6 hours
BLOCKING: 150 ± 2°C for 24 hours
COLOR: White preferred
FLAMMABILITY: Char Length, 5 ft. *(1.5 m)* (maximum)
HUMIDITY RESISTANCE: Insulation Resistance,
5000 megohms for 1000 ft. *(1524 megohms for 1 km)* (minimum)
INSULATION ELONGATION AND TENSILE STRENGTH:
Primary Insulation,
Elongation, 150% (minimum)
Tensile Strength, 2500 lbf/in^2 *(17.2 MPa)* (minimum)
INSULATION FLAWS:
Primary Insulation,
Spark Test, 1.5 kV (rms)
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 RESISTANCE:
5000 megohms for 1000 ft. *(1524 megohms for 1 km)* (minimum)
LOW TEMPERATURE-COLD BEND: -65 ± 2°C for 4 hours
SHRINKAGE: 300 ± 2°C, 0.125 in. *(3.18 mm)* (maximum) in 12 inches *(305 mm)*
SMOKE RELEASE:
Peak Smoke Release Rate, 0.40 m^2/s (maximum)
Total Smoke Release, 150 m^2 (maximum)
SMOKE TEST: D4, 50 (maximum); Dm, 300 (maximum)
TOXICITY: HCN: 100 ppm (maximum) SO2: 100 ppm (maximum)
CO: 3500 ppm (maximum) HF: 100 ppm (maximum)
NO: 100 ppm (maximum) HCl: 500 ppm (maximum)
VOLTAGE WITHSTAND (Post Environmental): 2500 volts (rms), 60 Hz, 5 minutes

1/ PART NUMBER:
The "*" in the part numbers in Tables I and II shall be replaced by a color code designator.
Example: AWG 20, white: 400R0111-20-9
AWG 20, white with a black stripe: 400R0111-20-90

PRODUCT IDENTIFICATION:
Outer surface of wire shall be marked in contrasting color as follows:
"RAYCHEM 400R0111-xx - 600V Yr of Mfg" (xx = applicable AWG size)

1/ See footer section on page 1