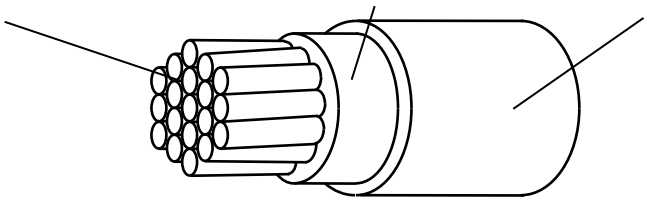
WIRE, ELECTRICAL, RADIATION-CROSSLINKED, TIN-COATED COPPER, LIGHTWEIGHT, GENERAL PURPOSE, 300 VOLT. (SUITABLE FOR 600 VOLT APPLICATIONS)

The complete requirements for procuring the wire herein shall consist of this document, UL subject 758, style 1385, File E 38136, CSA C22.2 No. 210-05. Class Number 5851-01, carrying UL and CSA labels to that effect and the issue in effect of Quality Plan QP-D-0004 as applicable.

Primary Insulation -
Radiation Crosslinked Extruded Polyalkene

Conductor -
Tin Coated Copper



Jacket -
Radiation Crosslinked
Extruded Polyvinylidene Fluoride
Thickness: 0.07 mm Min.
0.077 mm Nom.

TABLE 1. CONSTRUCTIONAL DETAILS

Part Description	Wire Size (AWG)	Conductor Stranding	Conductor Diameter (mm) Max.	FINISHED WIRE			
				Maximum Resistance @ 20°C (Ohms/km)	Diameter (mm) Min.	Diameter (mm) Max.	Maximum Weight (kg/km)
44/7031-28-*	28	7/0.13	0.41	222	0.71	0.81	2.09
44/7031-26-*	26	19/0.10	0.53	133	0.81	0.91	2.83
44/7031-24-*	24	19/0.12	0.66	83.3	0.97	1.07	4.02
44/7031-22-*	22	19/0.15	0.84	50.9	1.14	1.24	5.51
44/7031-20-*	20	19/0.20	1.04	31.8	1.35	1.45	7.75
44/7031-18-*	18	19/0.25	1.32	20.0	1.60	1.70	11.5
44/7031-16-*	16	19/0.30	1.48	13.7	1.80	1.95	15.6

TABLE II. PERFORMANCE DETAILS

Mandrel Diameter (mm ± 3%) Immersion			Weight (kg ± 3%) Immersion	
Life cycle and Accelerated ageing	Cold Bend	Wrap	Life cycle and Accelerated ageing	Cold Bend
9.5	9.53	4.78	0.11	0.23
12.7	12.7	6.35	0.11	0.23
12.7	12.7	6.35	0.17	0.23
19.1	19.1	9.53	0.17	0.45
19.1	19.1	9.53	0.17	0.45
25.4	25.4	12.7	0.23	0.45
25.4	25.4	12.7	0.23	0.45

COLOUR CODE: The '*' in the part number shall be replaced by a standard colour code designator in accordance with Mil Std 681.
e.g. 44/7031-26-9 White insulation

PRODUCT IDENTIFICATION: 20 AWG and larger shall be marked in a contrasting colour at 600 mm (maximum) intervals as follows:
"CSA LL41234 AWM I A 125°C 300V FT1"

APPROVAL: Electronic sign off - no signatures will appear.

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WIRE RATING AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 125°C, Maximum continuous conductor temperature
ACCELERATED AGEING: 225 ±3°C for 6 hours
*BLOCKING: 150±2°C for 24 hours
IDENTIFICATION AND COLOUR STRIPING DURABILITY: 125 cycles (250 strokes) (minimum)
FLAMMABILITY: 30 seconds (maximum); 76.2 mm (maximum); no flaming of facial tissue
*HUMIDITY RESISTANCE: Insulation resistance, 152 MW for km. (minimum)
INSULATION ELONGATION AND TENSILE STRENGTH:
Primary insulation:
Tensile strength: 13.8 MPa (minimum). To be tested in accordance with UL 758.
Elongation: 300% (minimum)
INSULATION FLAWS:
Primary insulation:
Spark test, 1.5kV(rms) 100% test
Impulse dielectric test, 6.0 kV(peak), 100% test
Finished wire:
Spark Test, 3.0 kV (rms) 100% test
Impulse dielectric test, 8kV(peak), 100% tests
INSULATION RESISTANCE: 152 MW for km (minimum)
*LIFE CYCLE: 185 ±3°C for 168 hours
LOW TEMPERATURE-COLD BEND: -65 ±2°C for 4 hours
SHRINKAGE: 225 ±3°C, 3.2 mm. (maximum) in 300 mm.
*SMOKE TEST: 165 ±3°C. No visible smoke
*SURFACE RESISTANCE: 500 MW for 25.4 mm (minimum), both readings
VOLTAGE WITHSTAND TEST (POST ENVIRONMENTAL): 2500volts (rms)
WICKING: 63.5 mm (maximum)

*Qualification test

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