

# 1/2" Plenum-Rated Armored Cable

SC-PL-Half-A

## Overview

1/2" Plenum-Rated Armored Copper Coaxial Cable for Public Safety Applications that Require Mechanical Protection.

Spooled, connectors not included. SureCall N-Male connector is part # SC-CN-099.



### Construction Materials and Dimensions

Inner Conductor	Material	Copper Clad Aluminum Wire
	Diameter, in.	0.189
Dielectric	Material	PE Spline
	Diameter, in.	0.465
Outer Conductor	Material	Ring Corrugated Copper
	Diameter, in.	0.543
Jacket	Material	PVC, Plenum Rated
	Diameter, in.	0.629

### Electrical Specifications

Inner conductor DC resistance, /kft	0.486
Outer conductor DC resistance, /kft	0.689
Impedance,	50 ±2
Inductance, H/ft	0.058
Capacitance, F/ft	23
Propogation velocity, %	88
DC breakdown voltage, kV	6.0
Insulation resistance, M/km	>5X10 <sup>3</sup>
Peak Power, kW	40
Screening attenuation, dB	>120
Cut-off frequency, GHz	8.80

### Mechanical Specifications

Bending radius, in.	Single	2.76
	Repeated	4.92
Tensile strength, lbs.		254
Crush resistance, lb/in.		80
Bending moment, ft lb.		11.4
Storage Temperature, °F		-94 to +185
Installation Temperature, °F		-40 to +140
Operating Temperature, °F		-67 to +185

## References

- **Per NFPA 72, 2019, section 12.4.2 Pathway Survivability Level 1.**

Pathway survivability Level 1 shall consist of pathways in buildings that are fully protected by an automatic sprinkler system in accordance with NFPA 13 with any interconnecting conductors, cables, or other physical pathways protected by metal raceways or metal armored cables.

- **Per NFPA 70, 2014, Raceway is defined as:**

An enclosed channel of metallic or nonmetallic materials designed especially for holding wires, cables, or busbars, with additional functions as permitted in this code.

- **Per NFPA 70, 2014**

Section 348.2 Definition.

Flexible Metal Conduit (FMC). A raceway of circular cross section made of helically wound, formed, interlocked metal strip

### Attenuation

Frequency	dB/100ft	dB/100m
10	0.21	0.67
100	0.67	2.19
200	0.96	3.15
450	1.48	4.85
800	2.03	6.65
900	2.15	7.07
1000	2.30	7.53
1500	2.88	9.46
1800	3.20	10.50
2000	3.40	11.16
2300	3.69	12.11
3000	4.36	14.16
6000	6.58	21.58

### VSWR

806-960 MHz	1.15
1700-2400 MHz	1.15
5-3000 MHz	1.25

### Fire Retardant Properties

ETL Listed to UL 444

Canadian CSA C.22.2/FT6

CATV/CMP

NFPA-262

\*NFPA 72 section 12.4.2 Pathway