

ULBRICH SPECIALTY WIRE PRODUCTS

692 Plant Road Westminster, SC 29693 (864) 647-6087 info@ulbrich.com

**CAPABILITY SHEET** 

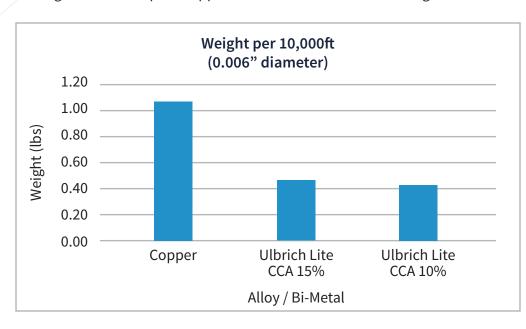
# Ulbrich Lite SPCCA Silver Plated Copper Clad Aluminum

Precision Drawn, Rolled and Plated Ulbrich Lite SPCCA

**Applications:** Center Conductor and Braid materials for RF and Microwave Cables

Ulbrich is committed to delivering high precision products, now with the added benefit of large weight savings for your critical applications. SPCCA can be manufactured into both round and flat sizes comparable to other copper products.

**Weight Savings:** Ulbrich Lite SPCCA is a lighter alternative to pure copper with a weight savings of over 50% while retaining desirable electrical properties. This material is ideal for aerospace, military, satellite and other weight conscious applications. To demonstrate the weight saving potential, a graph is included below showing the difference in weight between a pure copper round wire and that same length and size wire made of copper clad aluminum.



Before Plating	After Plating
Rolled Side	Rolled Edge

Property	Copper Wire	Ulbrich Lite CCA 15%	Ulbrich Lite CCA 10%
Density [lb/in³]	0.324	0.131	0.12
Electrical Conductivity IACS	100%	64.42%	62.85%
Electrical Resistivity [Ohms m]	1.68 x 10 <sup>-8</sup>	2.67 x 10 <sup>-8</sup>	2.74 x 10 <sup>-8</sup>

## **Available Sizes**

Diameter:0.005" to 0.160"Thickness:0.0025" to 0.010"Width:0.015" to 0.100"



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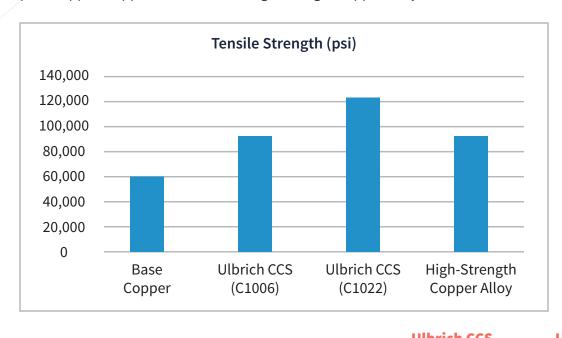
# Ulbrich SPCCS Silver Plated Copper Clad Steel

Precision Drawn, Rolled and Plated Ulbrich SPCCS

**Applications:** Wrap, Braid and Center Conductor materials for RF and Microwave Cables

Ulbrich is committed to delivering high precision products, now with the added benefit of bi-metal construction for high strength applications. SPCCS can be manufactured into both round and flat sizes comparable to other copper products.

**Strength:** Ulbrich SPCCS is a stronger alternative to pure copper 50% while retaining desirable electrical properties. This material is ideal for applications where a stronger material is needed without the increase costs of some of the other "high-strength" copper alloys. A graph is included below showing the difference in tensile strength between pure copper, copper clad steel and high strength copper alloy round wires.



### **Available Sizes**

Diameter: 0.004" to 0.040"

Thickness: 0.001" to 0.010"

Width: 0.010" to 0.030"

High-Strongh

Illbrich CCS

Property	Copper Wire	(C1006)	(C1022)	Copper Alloy
Tensile (psi)	60,300	94,100	123,000	92,000
Yield (psi)	59,300	84,300	108,300	90,700
Electrical Resistivity [Ohms m]	6.46	15.85	15.85	Pending