



We Deliver Precision®

ULBRICH.COM

ULBRICH SPECIALTY WIRE PRODUCTS

692 Plant Road
Westminster, SC 29693

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CAPABILITY SHEET

Ulbrich Lite Weight CCA & SPCCA Copper Clad Aluminum

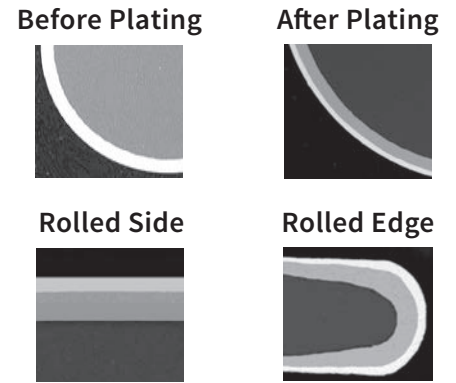
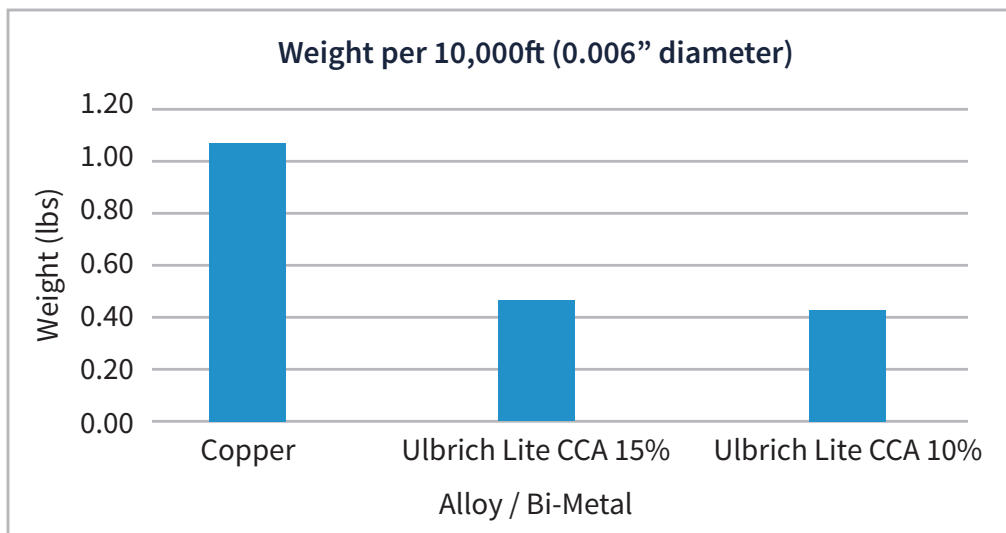
Precision Drawn, Rolled and Plated Ulbrich Lite Weight Materials

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 Plus Conductivity: This lighter alternative to pure copper has an approximate weight savings of 70% to copper while retaining desirable electrical properties. This material is ideal for aerospace, military, satellite & other weight conscious applications. To demonstrate the weight saving potential, the graph below shows the difference in weight between a pure copper round wire and that same length and size wire made of copper clad aluminum.

Reference ASTM B566, and other Standards



Available Forms

- Round and Flat
- Bare and Silver Plated
- Single and Multi-end

Size Ranges

Diameter: 0.005" to 0.160"
Thickness: 0.0025" to 0.010"
Width: 0.015" to 0.100"
 10:1 Width to Thickness Ratio

Property	Copper Wire	Ulbrich Lite CCA 15%	Ulbrich Lite CCA 10%
Density [lb/in ³]	0.324	0.131	0.12
Electrical Conductivity IACS	100%	64.42%	62.85%
Electrical Resistivity [Ohms m]	1.68 x 10 ⁻⁸	2.67 x 10 ⁻⁸	2.74 x 10 ⁻⁸



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CAPABILITY SHEET

Ulbrich CCS & SPCCS Copper Clad Steel

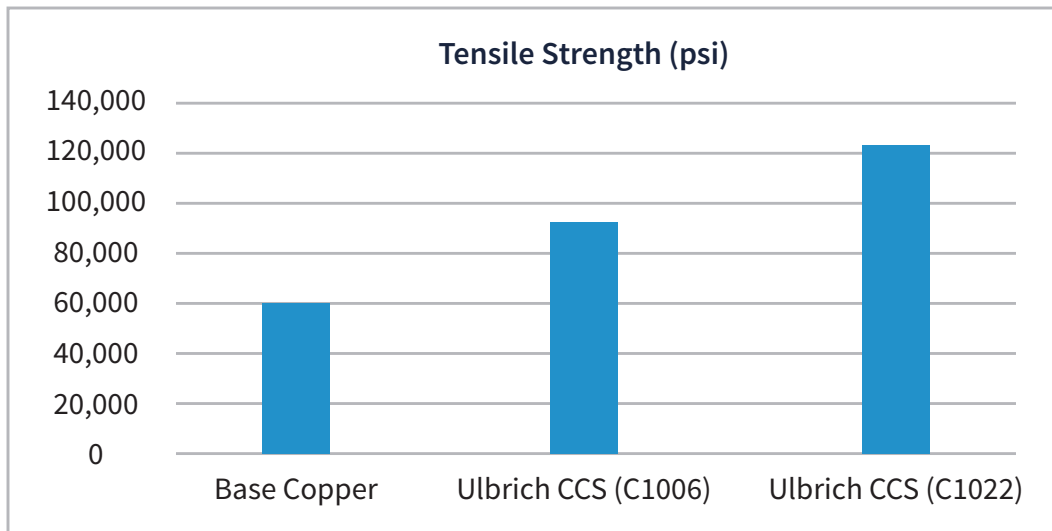
Precision Drawn, Rolled and Plated Ulbrich Materials

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 Plus Conductivity: Ulbrich CSS & SPCCS is a stronger alternative to pure copper 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.

Reference ASTM B501, ASTM B452, and other Standards



Available Forms

- Round and Flat
- Bare and Silver Plated
- Single and Multi-end

Size Ranges

Diameter: 0.004” to 0.060”

Thickness: 0.001” to 0.010”

Width: 0.010” to 0.030”

10:1 Width to Thickness Ratio

Property	Copper Wire	Ulbrich CCS (C1006)	Ulbrich CCS (C1022)
Tensile (psi)	60,300	94,100	123,000
Yield (psi)	59,300	84,300	108,300
Electrical Conductivity IACS	100%	40%	40%