High Performance Conductors, Inc.
A SUBSIDIARY OF IWG

CS-95® - Ultra-High Strength Copper Alloy

IWG High Performance Conductors' CS-95® copper base alloy system was initially introduced to the wire and cable industry to lead the reduction of size and weight while simultaneously increasing the reliability of cabling systems in aerospace. CS-95® has the outstanding properties of:

- Superior Tensile Strength
- Superior Flex Life
- Unsurpassed Strength and Conductivity to Weight Ratio
- Medium Electrical Conductivity

CS-95® has a history of reliable service in a wide variety of applications such as:

- High Performance Military and Commercial Aerospace
- Medical Diagnostic Equipment
- Miniature Invasive Medical Sensors and Probes
- Miniature Electronics

MATERIAL PROPERTIES		
Composition	98% Cu; Balance Ni, Be	
Unified Number	C17510	
Density	0.319 lbs/in^3 @68F (8.830 gm/cm^3 @20C)	
Thermal Conductivity	139 BTU-ft/(h-ft^2-F) [(240 watt/meter-K)]	
PHYSICAL PROPERTIES		
	Soft Temper	*Hard Temper*
Elongation, min	6%	1%
Tensile, min	95,000 PSI (655 MPa)	130,000 PSI (897 MPa)
ELECTRICAL PROPERTIES		
	Soft Temper	*Hard Temper*
Resistivity, max	16.46 cmil-Ω/ft (2.74 mΩ-cm)	25.93 cmil-Ω/ft (4.31 μΩ-cm)
Conductivity	63 % IACS	40% IACS
Temp. Coeff. of Resist.	0.00198 / °C	0.00198 / °C
AVAILABILITY		
Coatings [1]	Silver - Per ASTM B298, Nickel - per ASTM B355	
Constructions [2, 3, 4]	Solid: 26 - 56 AWG	
	Stranded: 22 - 46 AWG (7 Wire, 19 Wire Unilay and Conc.)	

1 – Strand sizes less than 44 AWG will not meet 40 micro-inches per ASTM B298

2 - Solid construction may not meet stated properties.

3 – Some sizes do not apply to nickel plated CS-95®

4 – Alternative constructions available for quote upon request

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