High Performance Conductors, Inc.
A SUBSIDIARY OF IWG

High Performance Conductors – Copper Alloy Comparison

IWG High Performance Conductors' has several copper-alloy options that have decades of service in a variety of industries such as aerospace, geophysical, and medical applications. The table and charts below provide a comparative overview of material properties.

COPPER-ALLOY COMPARISON

Copper-Alloy[1]	Tensile Rating (KSI)			Min Elong	Max Resistivity		Min Conductivity		Thermal
	Soft		Hard	(%)	(Ω-cmil/ft)		(%IACS)		Conductivity
BASE METAL	Min	Typical[2]	Min	Soft[3]	Soft	Hard	Soft	Hard	(BTU-ft/(h-ft2-F)
ETP/OF Copper	-	35	60	-	10.37	10.69	100	97	226
Tensile-Flex® (135)	60	73	100	8	11.52	12.20	90	85	200
HPC-35EF®	60	66	100	8	11.52	12.20	90	85	200
HPC-80EF®	55	59	100	8	12.20	12.96	85	80	191
C162 Cad Copper	55	63	100	8	12.20	12.96	85	80	208
CS-95®	95	103	130	6	16.46	25.93	63	40	139

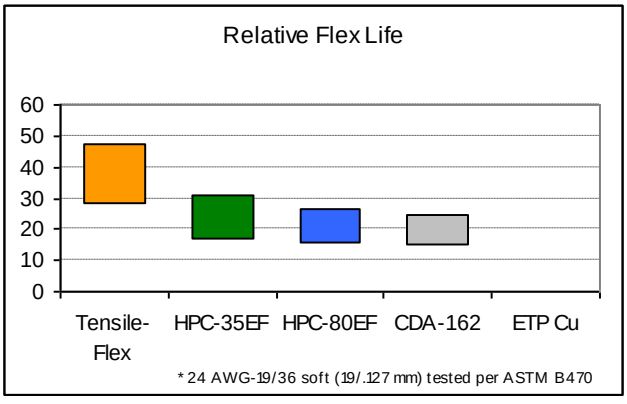
COPPER-ALLOY COMPARISON - METRIC

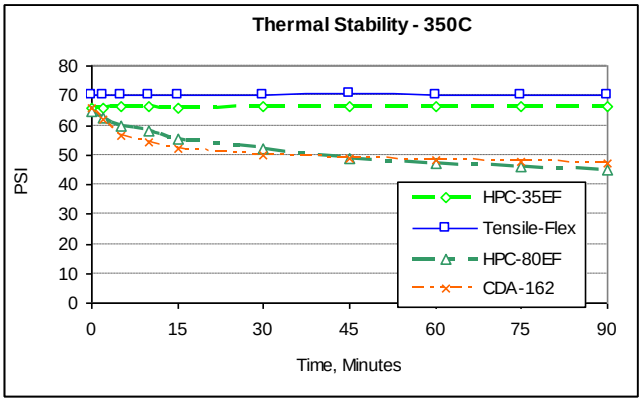
Copper-Alloy[1]	Tensile Rating (MPa)			Min Elong	Max Resistivity		Min Conductivity		Thermal
	Soft		Hard	(%)	(μΩ-cm)		(%IACS)		Conductivity
BASE METAL	Min	Typical[2]	Min	Soft[3]	Soft	Hard	Soft	Hard	(w att/meter-K)
ETP/OF Copper	-	241	414	-	1.72	1.78	100	97	391
Tensile-Flex® (135)	414	503	690	8	1.92	2.03	90	85	346
HPC-35EF®	414	455	690	8	1.92	2.03	90	85	346
HPC-80EF®	379	407	690	8	2.03	2.15	85	80	330
C162 Cad Copper	379	434	690	8	2.03	2.15	85	80	360
CS-95®	655	710	897	6	2.74	4.31	63	40	240

1- ETP/OF, HPC-35EF®, HPC-80EF®, and CS-95® w ill meet RoHS compliance requirements.

2- Typical tensile ratings based on 24 AWG – 19/36 (19/.127 mm).

3- Typical elongation ratings for ETP/OF w ill be dependant on the size and relevant ASTM requirement.





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