DURAMAX™
Inspiring the future generations of welders

PRODUCT DATA SHEET

DMERCU
Premium Copper Alloy Wire

Classification: **ERCu**

AWS A5.7 / ASME SFA5.7

Deoxidized Copper

Characteristics, Application or Usage:

DuraMax ERCU Deoxidized Copper is a filler metal containing 98% or more copper with a small amount of Phosphorus and Silicon used for joining copper to itself or with galvanized or mild steel where high strength joints are not required. This easy flowing alloy produces weld deposits that match the color of copper. DMERCU is also electrically conductive and porosity free.

For joining deoxidized copper, copper pipes, tanks and copper fitting and can also be used for overlaying steel surfaces to resist corrosion

All Weld Chemical Composition (%)

Cu	Sn	Mn	Si	P	Al	Pb	TOE
98.0 MIN	1.0 max	0.50 max	0.50 max	0.15 max	0.01 max	0.02 max	0.50 max

Typical Weld Metal Mechanical Properties:

Tensile Strength (PSI)	Yield Strength (PSI)	Elongation % in 2 inch	Reduction of Area	IACS, Electrical Conductivity	Hardness (Vickers)
29,000	8,000	29%	45%	40% IACS	38 HV

Sizes Available and Weld Parameters:

Process	Size	Volts	AMPS	Speed/Flow	Shielding Gas / Flux
GTAW (DCEN)	1/16	---0---	70 - 120	40 - 55 CFH	100% Helium or 100% Argon
"	3/32	---0---	120 - 160	40 - 55 CFH	
"	1/8	---0---	170 - 230	40 - 55 CFH	
GMAW(DCEP)	0.035	20 - 36	100 - 200	45 - 55 CFH	100% Argon or 75% Argon + 25% Helium
"	0.045	22 - 28	100 - 200	45 - 55 CFH	
"	1/16	29 - 32	250 - 400	45 - 55 CFH	
"	3/32	32 - 34	350 - 500	45 - 55 CFH	

Preheat and Interpass Recommendations:

*Preheating copper – base alloys is frequently unnecessary provided section thicknesses are not unusually heavy.

*Preheat and Interpass temperatures will vary depending on section thickness, selected weld process and other variables.