Inweld Copper-Nickel 67

AWS A5.7 ERCuNi

Chemical Composition of Inweld Copper-Nickel 67

Fe	Pb	Cr	Ni	Mo	Mn	Si	P	Ti	Cu	Other
0.40-0.75	0.02	---	29.0-32.0	---	1.00	0.35	0.02	0.20-0.50	Balance	0.50

Single values are maximum unless otherwise specified.

Description and Applications

Inweld 67 is often referred to as Copper-Nickel 70/30. Inweld 67 is used for MIG, TIG, Oxyacetylene and Submerged Arc welding of wrought or cast 70/30, 80/20 and 90/10 copper-nickel alloys to themselves or to each other. Inweld 67 is also used for cladding and overlay welding on steel. When overlaying utilizing the MIG process, a cushion layer of Inweld 61 is recommended for the first pass but if using the sub-arc process, then use Inweld 60 for the first pass. Inweld 67 is used for welding dissimilar combinations of copper-nickel to nickel-copper alloys such as Monel 400, R-405, K-500 or Nickel 200. Inweld 67 is commonly used in marine applications where it offers excellent resistance to the corrosive effects of salt water. Preheating is generally not necessary when using Inweld 67.

Typical Weld Metal Properties

	AWS Spec
Average As-Welded Brinell Hardness:	60-80
Tensile Strength:	50,000 psi
Yield Strength:	
Elongation:	30%

Recommended Parameters

GMAW (DCRP – Electrode+) 100% Ar or a 75% Ar / 25% He Mixture

Wire Diameter	Voltage	Amperage
0.035”	20-26	100-200
0.045”	22-26	100-250
1/16”	29-32	250-400
3/32”	32-34	350-500

GTAW (DCSP – Electrode-) 100%Ar or He 2% Thoriated, 2% Ceriated or Lanthanum Tungsten Electrode

Wire Diameter	Voltage	Amperage
1/16”	70-120	70-150
3/32”	120-160	140-230
1/8”	170-230	225-320
5/32”	220-280	175-300
3/16”	280-330	200-320