

# Inweld Nickel 67

UNS/CDA C71581

AWS A5.7 Class ERCuNi

ASME SFA5.7 Class ERCuNi

MIL-E-21562 Type MIL-RN67, MIL EN67

MIL-I-23413 (MIL-67)

QQ-R-571C MIL-R-19631B Type MIL-RCuNi



## 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 subarc process, then use Inweld 60 for the first pass. Inweld 67 is commonly used for welding copper-nickel alloys to nickel-copper alloys such as 400, R-405, K-500 or high 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.

## Chemical Composition of Inweld 67 ERCuNi

Cu	Fe	Si	Pb	Mn	P	Ni	Ti	Total Other(s)
Balance	0.40-0.75	0.25	0.02	1.00	0.02	29.0-32.0	0.20-0.50	0.50

Single values are maximum unless otherwise specified.

Approximate Melting Temperature: 2260 F (1238 C)

Average As-Welded Brinell Hardness: 60-80

Tensile Strength: 50,000 psi (345 MPA)

Elongation (%): 30%



## Recommended Welding Parameters:

	Wire Diameter	Voltage*	Amperage*
GMAW (DCRP – Electrode +)	0.035 <sup>cc</sup>	20-26	100-200
100% Argon or a 75 – 25%	0.045 <sup>cc</sup>	22-28	200-250
Argon / Helium mixture	1/16 <sup>cc</sup>	29-32	250-400
.	3/32 <sup>cc</sup>	32-34	350-500
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GTAW (DCSP – Electrode -)	1/16 <sup>cc</sup>	70-120	70-150
ACHF using 100% Ar or He	3/32 <sup>cc</sup>	120-160	140-230
2% Thoriated, 2% Ceriated or	1/8 <sup>cc</sup>	170-230	225-320
2% Lanthanum Tungsten Electrode	5/32 <sup>cc</sup>	220-280	175-300
.	3/16 <sup>cc</sup>	280-330	200-320

\*Use low range for iron or nickel-based alloy's, middle range for bronze alloys and high range for copper.