Inweld Nickel 82

AWS A5.14 ERNiCr-3

Chemical Composition of Inweld Nickel 82

Fe	C	Cr	Ni	Ti	Mn	Si	P	S	Nb (Cb) & Ta	Cu	Other
3.0	0.10	18.0-22.0	67.0 min	0.75	2.5-3.5	0.50	0.03	0.015	2.0-3.0	0.50	0.50

Single values are maximum unless otherwise specified.

Description and Applications

Inweld Nickel 82 is used for welding nickel-chromium-iron alloys, for the clad side of joints in steel clad with nickel-chromium-iron alloy, for surfacing steel with nickel-chromium-iron weld metal, and for joining steel to nickel-base alloys. Typical specifications for the nickel-chromium base metal are ASTM B163, B166, B167, and B168, all of which have UNS number N06600. The filler metal can be used with the gas tungsten arc (GTAW), gas metal arc (GMAW), submerged arc (SAW) and plasma arc welding processes.

Typical Weld Metal Properties

	AWS Spec
Tensile Strength:	80,000 psi
Yield Strength:	50,000 psi
Elongation:	30%

Recommended Parameters

GMAW (DCEP – Electrode+) Spray

Wire Diameter	Voltage	Amperage
0.035”	26-32	175-240
0.045”	26-32	225-300
1/16”	27-33	250-330

GTAW (DCEN – Electrode-)

Wire Diameter	Voltage	Amperage
1/16”		70-150
3/32”		140-230
1/8”		225-320
5/32”		175-300