Inweld Nickel 625

AWS A5.14 ERNiCrMo-3

Chemical Composition of Inweld Nickel 625

Fe	C	Cr	Ni	Mo	Mn	Si	P	Al	Nb (Cb) & Ta	S	Ti	Cu	Other
0.5	0.10	20.0-23.0	58.0 min	8.0-10.0	0.50	0.50	0.02	0.40	3.15-4.15	0.015	0.40	0.50	0.50

Single values are maximum unless otherwise specified.

Description and Applications

The nominal composition (wt.-%) of NA625 is 61 Ni, 22 Cr, 9 Mo, 3.5 Nb plus Ta. Filler metal of this classification is used for welding nickel-chromium-molybdenum alloy (ASTM B 443, B 444, and B 446 having UNS number N06625) to itself, to steel, to other nickel-base alloys, for cladding steel with nickel-chromium-molybdenum weld metal, and for welding the clad side of joints in steel with nickel-chromium-molybdenum alloy using the GTAW, GMAW, SAW, and PAW processes. This filler metal is recommended for applications where the operating temp ranges from cryogenic to 1,000˚ F [540˚C].

Typical Weld Metal Properties

	AWS Spec
Tensile Strength:	110,000 psi
Yield Strength:	60,000 psi
Elongation:	30%

Recommended Parameters

GMAW (DCEP – Electrode+) Spray, 75%Ar/25%He

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-), 100% Argon

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