

ERNi-1

UNS N02061

ERNi-1 is intended for welding wrought and cast forms of commercially pure nickel alloy (ASTM B 160, B 161, B 162, and B 163 having UNS number N02200 or N02201) to itself using the GTAW, GMAW, SAW, and PAW processes

Specification

AWS A5.14 Class ERNi-1
ASME SFA5.14 Class ERNi-1

Chemical Composition

Composition limits. 0.15 max C; 1.0 max Mn; 1.0 max Fe; 0.03 max P; 0.015 max S; 0.75 max Si; 0.25 max Cu; 93.0 min Ni; 2.0-3.5 Ti; 1.5 max Al.

Applications

Typical uses: ERNi-1 is useful in a variety of dissimilar applications between nickel alloys to stainless or ferritic steels. Also used for overlaying carbon steel and in repairing cast iron castings.

Mechanical Properties

Tensile properties:
Tensile Strength: 65,000 PSI
Yield Strength: 37,000 PSI 360 MPa
Elongation: 27%

Standard Packaging

TIG 11 lbs (5kgs) per tube
MIG 33 lbs (15kgs) per spool
Sub-Arc 60 lbs (27kgs) per coil

Welding Parameters

PROCESS	SIZE	VOLTS	AMPS	SHIELDING GAS/FLUX
GTAW	1.6mm		80-110	100% Argon
	2.4mm		90-130	100% Argon
	3.2mm		120-175	100% Argon
GMAW	0.9mm	26-29	150-190	75% Argon+25% Helium
	1.2mm	28-32	180-220	
	1.6mm	29-33	200-250	
SAW	2.4mm	28-30	275-350	Suitable Flux
	3.2mm	29-32	350-450	Suitable Flux