Alloy: COREWELD 60 | Class: ERNiCu-7

ERNiCu-7 (Alloy 60) • Weld Processes: GMAW, GTAW & SAW

CERTIFIED TO
AWS A5.14
ASME SFA A5.14

AWS CHEMICAL COMPOSITION REQUIREMENTS | DEPOSITED CHEMICAL COMPOSITION % (TYPICAL)

AWS REQUIREMENT (%)		TYPICAL DEPOSIT (%)	
C	0.15 max	**C**	0.05
Cu	Remainder	**P**	0.008
Mn	4.0 max	**Ni**	65.9
Ni	62.0 – 69.0	**Mn**	3.45
Fe	2.5 max	**S**	0.002
Al	1.25 max	**Ti**	2.25
P	0.02 max	**Fe**	0.40
Ti	1.5 – 3.0	**Si**	0.77
S	0.015 max	**Al**	0.10
Other	0.50 max	**Cu**	Balance
Si	1.25 max		

DEPOSITED ALL WELD METAL PROPERTIES % (AW) | CHARPY-V-NOTCH IMPACT PROPERTIES %

MECHANICAL PROPERTY		CHARPY-V-NOTCH IMPACT
Tensile Strength	76,000 psi	*Not applicable*
Yield Strength	51,000 psi	
Elongation	34.5%	

APPLICATION

COREWELD 60 ERNiCu-7 (60) is a copper-nickel alloy base wire for GMAW and GTAW welding of Monel alloys 400 and 404. Also used for overlaying steel after first applying a layer of 610 nickel.

RECOMMENDED WELDING PARAMETERS FOR TIG, MIG & SAW WELDING OF NICKEL ALLOYS

PROCESS	DIAMETER OF WIRE	DIAMETER OF WIRE (MM)	VOLTAGE (V)	AMPERAGE (A)	GAS
TIG					
	.035 in	0.90	12–15	60–90	100% Argon
	.045 in	1.20	13–16	80–110	100% Argon
	1/16 in	1.60	14–18	90–130	100% Argon
	3/32 in	2.40	15–20	120–175	100% Argon
	1/8 in	3.20	15–20	150–220	100% Argon
MIG					
	.035 in	0.90	26–29	150–190	75% Argon + 25% Helium
	.045 in	1.20	28–32	180–220	75% Argon + 25% Helium
	1/16 in	1.60	29–33	200–250	75% Argon + 25% Helium
SAW					
	3/32 in	2.40	28–30	275–350	Suitable flux may be used
	1/8 in	3.20	29–32	350–450	Suitable flux may be used
	5/32 in	4.00	30–33	400–550	Suitable flux may be used

Note: Other shielding gases may be used for MIG and TIG welding. Shielding gases are chosen taking quality, cost, and operability into consideration.
Note: Both agglomerated and fused fluxes can be used for submerged arc welding.
Note: The chemical composition of the flux mainly affects the chemistry of the weld metal and consequently its corrosion resistance and mechanical properties.

METRACORE ALLOYS PVT LTD.
191 Nawsariwala Building, Shop No 7, Ground Floor, 2nd Kumbharwada Main Road, Near Gol Deval Temple, Mumbai – 400004
Email: sales@metracorealloys.com | Contact: +91-9167564557