Alloy: COREWELD C276 | Class: ERNiCrMo-4

ERNiCrMo-4 (Alloy C276) • Weld Processes: GMAW & GTAW

CERTIFIED TO
AWS A5.14
ASME SFA A5.14

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

AWS REQUIREMENT (%)		TYPICAL DEPOSIT (%)	
C	0.02 max	**C**	0.01
Cu	0.50 max	**Cr**	15.55
Mn	1.0 max	**Ni**	Balance
Ni	Remainder	**Mn**	0.55
Fe	4.0 to 7.0	**Mo**	16.1
Co	2.5 max	**Si**	0.04
P	0.04 max	**Fe**	5.5
Cr	14.5 – 16.5	**W**	3.65
S	0.03 max		
Mo	15.0 – 17.0		
Si	0.08 max		
W	3.0 – 4.5		
Other	0.50 max		
V	0.35 max		

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

MECHANICAL PROPERTY		CHARPY-V-NOTCH IMPACT
Tensile Strength	105,000 psi	*Not applicable*
Yield Strength	81,000 psi	
Elongation	40%	

APPLICATION

COREWELD C276 ERNiCrMo-4 is used for welding nickel-chromium-molybdenum base materials to itself, steel and other nickel base alloys and for cladding steel.

RECOMMENDED WELDING PARAMETERS FOR TIG & MIG 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

Note: Other shielding gases may be used for MIG and TIG welding. Shielding gases are chosen taking quality, cost, and operability into consideration.

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