

GEN 617 Welding Wire and Rod

GEN 617 is used for welding nickel-chromium-cobalt-molybdenum base material using the gas tungsten arc (GTAW) and gas metal arc (GMAW) process. The weld metal provides a combination of excellent metallurgical stability and strength for high temperature service up 1100°C (2012°F). GEN 617 can also be used for overlay welding where similar chemical composition is desired.

CONFORMANCES

AWS A5.14	:	ERNiCrCoMo-1
ASME SFA-5.14	:	ERNiCrCoMo-1
UNS	:	N06617

AWS CHEMICAL COMPOSITION (TYPICAL)

%C	%Cr	%Ni	%Mo	%Al	%Fe	%Mn
0.05 – 0.15	20.0 – 24.0	rem.	8.0 – 10.0	0.8 – 1.5	3.0 max.	1.0 max.
0.06	22.4	Rem.	8.80	1.35	0.51	0.35
%Si	%P	%S	%Cu	%Co	%Ti	Total Others
1.0 max.	0.03 max.	0.015 max.	0.50 max.	10.0 – 15.0	0.60 max.	0.50 max.
0.80	0.004	0.001	0.03	11.3	0.36	

TYPICAL WELD METAL MECHANICAL PROPERTIES

Tensile Strength	:	112,000 psi	772 MPa
Yield Strength	:	88,000 psi	606 MPa
Elongation	:	27 %	

TYPICAL WELDING PARAMETERS*

Process	Diameter		Voltage	Amperage	Gas/Flux
TIG (GTAW)	1/16"	1.6 mm	14 – 19	90 – 130	100% Ar
	3/32"	2.4 mm	15 – 20	120 – 175	100% Ar
	1/8"	3.2 mm	15 – 20	150 – 225	100% Ar
MIG (GMAW)	.035"	0.9 mm	26 – 30	150 – 200	75% Ar – 25% He
	.045"	1.1 mm	28 – 32	170 – 220	75% Ar – 25% He

*All parameters are suggested as basic guidelines only and will vary depending on joint design, number of passes and other factors.

IMPORTANT: SPECIAL VENTILATION AND/OR EXHAUST REQUIRED BEFORE USE, READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) FOR THIS PRODUCT AND SPECIFIC INFORMATION PRINTED ON THE PRODUCT CONTAINER.
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