

Nickel Alloy TIG • MIG • SAW Wire

Oxford Alloy[®] 601

SPECIFICATIONS

AWS 5.14
ASME SFA 5.14

CLASSIFICATIONS

AWS ERNiCrFe-11
UNS N06601

DESCRIPTION / APPLICATION

Oxford Alloy 601 is used for the welding of alloy 601. The GTAW process with Oxford Alloy 601 is the only recommended joining method for applications involving temperature over 2100°F (1150°C) or for applications at lower temperatures involving exposure to hydro- gen sulfide or sulfur dioxide. The weld metal of this filler metal is comparable to the base metal in resistance to corrosion and oxidation.

AWS Chemical Composition

Ni	Cr	Fe	Al	C	Mn	S
58.0-63.0	21.0-25.0	Bal	1.0-1.7	0.10 max	1.0 max	0.015 max
Si	Cu	P	OET			
0.50 max	1.0 max	0.03 max	0.50 max			

TYPICAL MECHANICAL PROPERTIES

Tensile strength: 94,000 psi 648 MPa

Elongation: 42%

Typical Welding Parameters

Process	Diameter	Volt	Amp	Shield Gas
GTAW	1/16 (1.6mm)	14-18	90-130	100% Argon
GTAW	3/32 (2.4mm)	15-20	120-75	
GTAW	1/8 (3.2mm)	15-20	150-220	
GMAW	.035 (0.9mm)	26-29	150-190	75% Ar / 25% He or 100% Ar
GMAW	.045 (1.14mm)	28-32	180-220	
GMAW	1/16 (1.6mm)	29-33	200-250	
SAW	3/32 (2.4mm)	28-30	275-350	Suitable Flux
SAW	1/8 (3.2mm)	29-32	350-450	



Data contained in this publication are typical of the products and properties described, but are not suitable for specifications. Certified Material Test Certificates (CMTR) and Material Safety Data Sheets (MSDS) are available at www.oxfordalloys.com.

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