



Supplier of Welding Alloys

## Nickel Alloy Coated Electrodes

### Oxford Alloy® 117

**SPECIFICATIONS**

AWS 5.11  
ASME SFA 5.11

**CLASSIFICATIONS**

AWS ENiCrCoMo-1  
UNS W86117

**DESCRIPTION / APPLICATION**

Oxford Alloy 117 is used for shielded-metal-arc welding of Inconel® alloy 617. The weld metal of this electrode has high strength, good metallurgical stability, and excellent resistance to corrosion and high-temperature oxidation. Oxford Alloy 117 also is used for welding many dissimilar materials, especially for high temperature applications. Some examples are Inconel® alloys 600 and 601, Incoloy® alloys 880HT and 802, and cast alloys such as HK-40, HP, and HP-45 Modified. This electrode can be operated in all welding positions. The power supply is direct current, electrode positive.

AWS Chemical Composition						
Ni	Cr	Co	Mo	C	Fe	Mn
Bal	21.0-26.0	9.0-15.0	8.0-10.0	0.05-0.15	5.0 max	0.3-2.5
Cb+Ta	S	Si	Cu	P	OET	
1.0 max	0.015 max	0.75 max	0.50 max	0.03 max	0.50 max	

**TYPICAL MECHANICAL PROPERTIES**

Tensile strength: 110,000 psi 760 MPa

Yield strength: 87,000 psi 600 MPa

Elongation: 26%

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