



Supplier of Welding Alloys

Stainless Steel TIG, MIG and SUB-ARC Wire

Oxford Alloy® 312

SPECIFICATIONS

AWS 5.9
ASME SFA 5.9

CLASSIFICATIONS

AWS ER312
UNS S31380

DESCRIPTION / APPLICATION

Oxford Alloy ER312 was originally designed to weld cast alloys of similar composition. This filler metal has also been found to be valuable in welding dissimilar metals such as carbon steel to stainless steel, particularly those grades high in nickel. Oxford Alloy ER312 gives a two-phase weld deposit with substantial percentages of ferrite in an austenite matrix. Even with considerable dilution by austenite-forming elements such as nickel, the microstructure remains two-phase and thus highly resistant to weld metal cracks and fissures.

AWS Chemical Composition						
C	Mn	Si	Cr	Ni	Mo	S
0.15 max	1.0- 2.5	0.30- 0.65	28.0- 32.0	8.0- 10.5	0.75 max	0.03 max
P	Cu					
0.03 max	0.75 max					

TYPICAL MECHANICAL PROPERTIES

Tensile strength: 102,950 psi 710 MPa

Yield strength: 85,550 psi 590 MPa

Elongation: 40%

Please contact our sales department for more information at 800-562-3355 or 225-273-4800.

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