

Oxford Alloy[®] Aluminum Bronze A-2

AWS ERCuAl-A2 • Bronze Alloys



Key Features

- ❖ Used to weld and join many ferrous and nonferrous metals and combinations of dissimilar metals.
- ❖ Contains an additive to inhibit inter-granular stress corrosion cracking. This is particularly important when welding on C61300 and C61400 base metal.
- ❖ Some applications include building up bearing surfaces, joining and fabricating copper alloys, overlaying for resistance to corrosion and erosion.

Conformances

AWS/ASME SFA 5.7
ERCuAl-A2
UNS C61800

Chemical Composition - As required per AWS 5.7

Cu+Ag	Al	Fe	Si	Zn	Pb	OET
Bal	8.5-11.0	0.5-1.5	0.10 max	0.02 max	0.02 max	0.50 max

Mechanical Properties - As required by AWS 5.7

	Tensile Strength MPa (ksi)	Yield Strength MPa (ksi)	Elongation %
AWS Requirements	415 (60) min	Not Specified	Not Specified
Typical Results - As welded	545 (79)	240 (35)	28

Typical Welding Parameters

Diameter		Process	Volt	Amps	Shielding Gas
in	(mm)				
.035	0.9	GMAW	20-26	100-200	100% Argon
.045	1.2	GMAW	22-28	100-250	
1/16	1.6	GMAW	29-32	250-400	
1/16	1.6	GTAW		70-120	100% Argon
3/32	2.4	GTAW		120-160	
1/8	3.2	GTAW		170-230	

Diameters & Packaging

Oxford Alloys USA			Oxford Alloys Asia Pacific		
Diameter (in)	Form	Packaging (lbs)	Diameter (mm)	Form	Packaging (kgs)
.035	GMAW	33 lb spool 1980 lb pallet	0.9	GMAW	15 kg spool 900 kg pallet
.045	GMAW	33 lb spool 1980 lb pallet	1.2	GMAW	15 kg spool 900 kg pallet
1/16	GMAW	33 lb spool 1980 lb pallet	1.6	GMAW	15 kg spool 900 kg pallet
1/16	GTAW	10 lb tube 40 lb carton	1.6	GTAW	5 kg tube 20 kg carton
3/32	GTAW	10 lb tube 40 lb carton	2.4	GTAW	5 kg tube 20 kg carton
1/8	GTAW	10 lb tube 40 lb carton	3.2	GTAW	5 kg tube 20 kg carton

Actual test results may vary. Refer test result disclaimer on page 160.