

MIG & TIG

Oxford Alloy[®] Silicon Bronze

AWS ERCuSi-A • Bronze Alloys

Key Features

- ❖ Used for the welding of copper, copper-silicon, and copper-zinc base metals to themselves
- ❖ Can also be used to surface areas subject to corrosion.

Conformances

AWS/ASME SFA 5.7
ERCuSi-A
UNS C65600

Chemical Composition - As required per AWS 5.7						
Cu+Ag	Zn	Sn	Mn	Fe	Si	Al
Bal	1.0 max	1.0 max	1.5 max	0.50 max	2.8-4.0	0.01 max
Pb	OET					
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	345 (50) min	Not Specified	Not Specified
Typical Results - As welded	350 (51)		



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% Helium
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.