

Aluminum & Copper Welding Wire & Electrodes

Alloy: WW1100

Conforms to Certification: AWS A5.10

Class: ER1100

ASME SFA A5.10

Alloy: ER1100

Weld Process: Mig & Tig

AWS Chemical Composition Requirements

Si & Fe = 0.95 max	Zn = 0.10 max
Cu = 0.05 - 0.20	Al = 99.00
Mn = 0.05 max	Be = 0.0003
Other = 0.05 each - 0.15 max total	

Recommended Operation of Welding Rods

Example

GMAW (Mig)

GTAW (TIG)

Diameter	.030	- All diameters
Amps (DC)	120 – 150 (DCEP)	(AC) or DCEP
Volts	20 – 24	<u>for thin gauge</u>
Gas	Argon 30CFH	- Argon or argon
Travel Speed	24 – 30 IPM	+ Helium for thick <u>Base metal</u>

Deposited Chemical Composition % (Typical)

Deposited chemistry is influenced by many factors so no typical analysis can be reported.

Application

Type ER1100 can be used to weld base materials types 1060, 1070, 1080, and 3003.

Deposited All Weld Metal Properties %

As-Welded

Deposited all weld metal properties are influenced by many factors such as weld process used, so no typical weld metal properties can be reported.

- The proper choice of aluminum filler metal mainly depends on the base metal properties to be achieved and Welding technique. Post weld cracking, corrosion resistance and behavior under elevated temperature also need to be taken into consideration.

Deposited Charpy-V-Notch Impact Properties %

Not applicable

- Cracking usually can be minimized by choosing a filler metal alloy of higher alloy content than the base metal.

