

Aluminum & Copper Welding Wire & Electrodes

Alloy: WW5356

Conforms to Certification: AWS A5.10

Class: ER5356

ASME SFA A5.10

Alloy: ER5356

Weld Process: Mig & Tig

AWS Chemical Composition Requirements

Si = 0.25 max	Cr = 0.05 - 0.20
Fe = 0.40 max	Zn = 0.10 max
Cu = 0.10 max	Ti = 0.06 - 0.20 max
Mn = 0.05 - 0.20	Al = Remainder
Mg = 4.5 - 5.5	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 (AC)
Amps (DC)	120 – 150	or DCEP for thin gauge
Volts	20 – 24	
Gas	Argon 30CFH	-Argon or Argon
Travel Speed	24 – 30 IPM	+Helium for thick base metal

Deposited Chemical Composition % (Typical)

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

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.

Deposited Charpy-V-Notch Impact Properties %

Not applicable

Application

ER5356 materials are used mainly for welding aluminum of like composition. This type is also useful if color match is important after anodizing.

- 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.

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

