Aluminum Welding Wire & Electrodes
Alloy: WW4043  Conforms to Certification: AWS A5.10
Class: ER4043  ASME SFA A5.10

Alloy: ER4043
Weld Process: Mig & Tig

AWS Chemical Composition Requirements
Si = 4.5 - 6.0  Zn = 0.10 max
Fe = 0.80 max  Ti = 0.20 max
Cu = 0.30 max  Al = Remainder
Mn = 0.05 max  Be = 0.0003
Mg = 0.05 max  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 30 CFH - Argon or Argon
Travel speed 24 – 30 IPM + Helium for thick base metal

Application
ER4043 aluminum filler materials are silicon-aluminum types for welding of 6052 and 6063 types; in some cases, other aluminums are also welded with this type. Brazing of 1100 and 3003 can be accomplished with free flowing 4043 composition.

- 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 then the base metal.

Deposited Chemical Composition % (Typical)
Deposited chemistry is influenced by many factors so no typical analysis can be recorded.

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