

Technical Data Sheet

5356 Aluminum Welding Wire



Overview

5356 is a 5% magnesium aluminum filler recommended for welding 5050, 5052, 5083, 5356, 5454 and 5456.

Features/Benefits

- Higher tensile strength than conventional aluminum alloys
- Low spatter
- Sound, dense welds
- Can be anodized

Applications

- Castings and housings
- Cylinder heads
- Pipes and frames
- Oil pans and tanks
- Heat-treatable aluminum alloys
- Truck and bus bodies

Method of Application

MIG Wire: MIG welding machine
TIG Wire: TIG welder with AC high frequency

Identification

MIG: labeled wire spool
TIG: stamped wire

Directions for Use

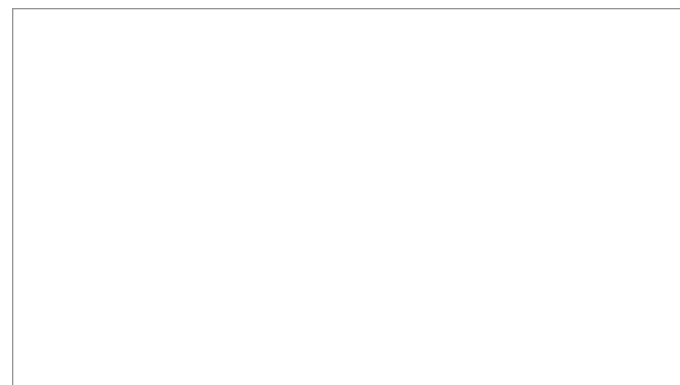
For MIG: set machine on DC reverse polarity.
For TIG: set machine on AC high frequency.
Use Ar shielding gas. Make sure all contaminants such as grease and oil are removed.
Hold a short arc and weld with stringer beads or a slight weave bead.

Technical Specifications

ANSI/AWS A5.10: ER/ R 5356
ASME SFA 5.10: ER/ R 5356

Technical Properties

Average Tensile Strength: All weld metal (as welded) 38,000 PSI (262 MPa)





Typical GMAW Welding Procedures: DCEP

100% Ar

Wire Diameter	Amps	Volts	Travel speed (ipm)	Argon (cfh)
0.030"	60 – 175	15 – 24	25 – 45	25 – 30
0.035"	70 – 185	15 – 27	25 – 40	30 – 35
3/64"	125 – 260	20 – 29	24 – 35	35 – 45
1/16"	170 – 300	24 – 30	28 – 38	45 – 55
3/32"	275 – 400	26 – 31	14 – 20	60 – 75

Typical GTAW Welding Procedures:

ACHF with Pure or Ziconiated Hemisphere Shape Tungsten Tip

100% Ar

Filler Wire Size	Tungsten	Amps	Volts	Gas Cup Size	Argon (cfh)	Base Thickness
1/16"	1/16"	60 – 80	15	3/8"	20	1/16"
3/32"	3/32"	125 – 160	15	3/8"	20	1/8"
1/8"	1/8"	190 – 220	15	7/16"	20	3/16"
5/32"	5/32"	200 – 300	15	1/2"	25	1/4"
3/16"	3/16"	330 – 380	15 – 20	5/8"	25	3/8"
1/4"	1/4"	400 – 450	25	5/8"	25	1/2"

Procedures may vary with change in position, base metals, filler metals, equipment and other changes.