

# Technical Data Sheet

## 4043 Aluminum Welding Wire



### Overview

4043 is a 5% silicon aluminum filler recommended for welding 3003, 3004, 5052, 6061, 6063, and cast alloy such as 443, 355, 356 and 214.

### Features/Benefits

- Welds most weldable aluminum grades
- Preheat not required except on heavy sections
- High corrosion resistance
- Weld joints stronger than the base metal

### Applications

- Housings and crankcases
- Cylinder heads and blocks
- Transmission housings
- Ornamental aluminum
- Boats, truck and bus bodies
- Vats, tanks and containers

### Method of Application

MIG Wire: MIG welding machine  
TIG Wire: TIG welding machine

### Identification

MIG: labeled wire spool  
TIG: embossed wire rod

### Directions for Use

For MIG: set machine on DC reverse polarity.  
For TIG: set machine on AC high frequency.  
Use Ar shielding gas. Hold a short arc and weld with stringer beads or weave beads.

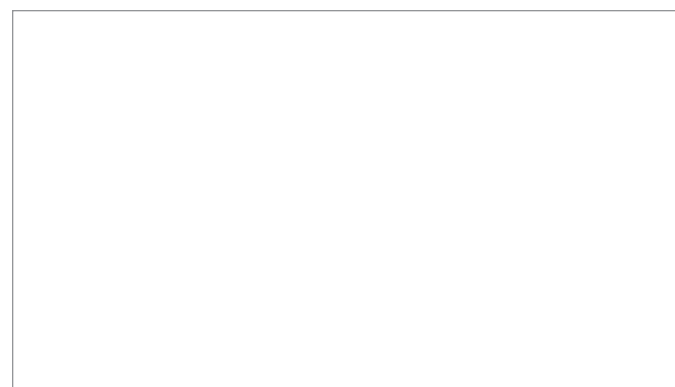
### Technical Specifications

ANSI/AWS A5.10: ER/ R 4043  
ASME SFA 5.10: ER/ R 4043  
AMS: 4190

### Technical Properties

Average Tensile Strength: All weld metal (as welded) 29,000 PSI (200 MPa)

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**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.*