



**WA. ALLOY CO.**

WASHINGTON ALLOY'S Quality  
Management System is  
Certified to **ISO 9001:2008**  
Cert # 05-R0925

# 4043 ALUMINUM Welding wire



 **American Welding Society**  
Sustaining Company Member

 **GAWDA**  
GASES AND WELDING DISTRIBUTORS ASSOCIATION

## ALLOY DESCRIPTION AND APPLICATION;

4043 is a 5% silicon aluminum filler recommended for

welding of 3003, 3004, 5052, 6061, 6063, and cast alloy such as 443, 355, 356 and 214.

## TYPICAL GMAW WELDING PROCEDURES; DCEP

| 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

| 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 are base on flat position and may vary with change in position, base metals, filler metals, equipment and other changes.

## TYPICAL CHEMISTRY AND PROPERTIES;

| Silicon  | Iron | Copper | Manganese | Magnesium                                      | Zinc | Titanium | Beryllium |
|--|------|--------|-----------|--|------|----------|-----------|
| 4.5-6.0  | 0.80 | 0.30   | 0.05      | 0.05   | 0.10 | 0.20     | 0.0008    |
| Aluminum Remainder and others each 0.50 & total 0.15 |      |        |           | All values are maximum percentage unless noted |      |          |           |

Solidus:1065°F      Liquidus:1170°F      Density: 0.097 lbs./cu. In.      Anodize color: Gray

Average Tensile Strength All weld metal (as welded) 29,000 psi (200 mpa)

**AVAILABLE SIZES:** TA 4043 = Spools of .023, .030, .035, .040, 3/64, 1/16

TB 4043 = Cut lengths of .023, .030, .035, 3/64, 1/16, 5/64, 3/32, 1/8, 5/32, 3/16, 1/4

**SPECIFICATIONS;** ANSI/AWS A5.10      ER/ R 4043

ASME SFA5.10      ER/ R 4043

AMS      4190

Other sizes available – please inquire



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