



4043 – PRODUCT DATA SHEET

Nexalloy 4043 is 5% silicon all position aluminum weld wire used to weld heat treatable alloys such as the 6XXX base metals and cast alloys. Found in many common welding applications such as bicycles, trucks, trailers, automotive parts and equipment. Silicon with this alloys give improved wetting action yielding a less crack sensitive bright weld bead.

NEXAL WELDING PRODUCTS APPROVALS AND SPECIFICATIONS

AWS A5.10 classification ER4043, R4043

Canadian Bureau of Welding – CWB

Chemical Composition (weight %)

| | | | |
|----------------|---------------------------|-----------|----------|
| Aluminum | Remainder | Silicon | 4.5-6.0 |
| Manganese | 0.05 Max | Magnesium | 0.05 Max |
| Iron | 0.80 Max | Titanium | 0.20 Max |
| Copper | 0.30 Max | Zinc | 0.10 Max |
| Beryllium | 0.0008 Max | | |
| Other Elements | 0.05 Max & Total 0.15 Max | | |

Typical Properties

| | |
|----------------------|---------------------------|
| Melting Range | 1065 – 1170 F 574 – 632 C |
| Tensile Strength PSI | 21-33,000 |
| Yield Strength PSI | 10-27,500 |
| Elongation in 2" | 5 – 12% |
| Density | .097 lbs\cu in. |
| Post Anodize Color | Gray |

Wire and Rod Diameters Available

0.030 0.035 3/64" 1/16" 3/32" 1/8" 5/32" 3/16" 1/4" 5/16"

Packaging Available

Plastic Spools – 1LB, 5LB, 10LB, 16LB, 20LB

TIG Rods – 5LB, 10LB, 50LB

Metal Spools – 10LB, 15LB

Drums – 150LB, 300LB

MIG Welding Procedures: DCEP

| Wire Diameter | WFS ipm | Amps | Volts | Consumption LB/100FT | Argon(cfh) |
|---------------|---------|---------|-------|----------------------|------------|
| 0.030 | 480-625 | 60-175 | 15-24 | 0.65-1.25 | 25-30 |
| 0.035 | 450-750 | 70-185 | 15-27 | 1.00-4.25 | 30-35 |
| 3/64" | 330-500 | 125-260 | 20-29 | 1.00-4.25 | 35-45 |
| 1/16" | 250-450 | 170-300 | 24-30 | 3.8-66 | 45-75 |
| 3/32" | 160-200 | 275-400 | 25-31 | 35-66 | 60-85 |

TIG Welding Procedures: ACHF- with Pure or Ziconiated Hemisphere shape tungsten tip

| Base Thickness | Filler Wire Size | Tungsten | Amps | Consumption LB/100FT | Gas Cup Size | Argon(cfh) |
|----------------|------------------|----------|---------|----------------------|--------------|------------|
| 1/16" | 1/16" | 1/16" | 60-80 | 0.75 | 3/8" | 20 |
| 3/32" | 3/32" | 3/32" | 85-120 | 1.00 | 3/8" | 20 |
| 1/8" | 3/32" | 3/32" | 125-160 | 1.50 | 3/8" | 20 |
| 3/16" | 1/8" | 1/8" | 190-220 | 4.5-6.0 | 7/16" | 25 |
| 1/4" | 5/32" | 5/32" | 200-300 | 8-10 | 1/2" | 30 |
| 3/8" | 3/16" | 3/16" | 330-380 | 15-20 | 5/8" | 35 |
| 1/2" | 1/4" | 1/4" | 400-500 | 25-40 | 5/8" | 40 |

Nexal Aluminum Inc.
www.nexalloy.com

5938 Ambler Drive Mississauga, ON L4W 2N3
An ISO 9001:2008 Certified Company

Phone: 1-905-629-8282
Fax: 1-905-629-8532

The data and information contained or referenced is resented as typical results without guarantee or warranty and Nexal expressly disclaims liability incurred of any kind with reliance thereon

Aluminum Manufacturing since 1973