



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		

Elements 0.05 Max & Total 0.15 Max

Typical Properties

Melting Range	1065 – 1170 F 574 – 632 C
Tensile Strength	21-33,000 PSI / 144-227 MPa
Yield Strength	10-27,500 PSI / 69-190 MPa
Elongation in 2"	5 – 12%
Density	.097 lbs/cu in. Other
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/0.4KG, 5LB/2.2KG, 10LB/4.5KG, 16LB/7.2KG, 20LB/9KG

Metal Spools – 10LB/4.5KG, 15LB /6.8KG **TIG Rods** – 5LB/2.2KG, 10LB/4.5KG, 50LB/22.6KG

Drums – 150LB/68KG, 300LB/136KG

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

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