



4043

Description Weldcote Metals 4043 (commonly referred to as AlSi5) is a 5% silicon aluminum filler metal that is available in spools or cut lengths for MIG or TIG processes. This alloy is recommended for welding 3003, 3004, 5052, 6061, 6063 and casting alloys 43, 355, 356, and 214.

Approvals

Manufactured under Quality System approved by ASME, IS09001. Meets AWS 5.10 Class ER4043. Approved by Canadian Welding Bureau.

Chemical Composition

Silicon	4.5-6.0
Iron	0.8
Copper	0.3
Manganese	0.05
Magnesium	0.05
Zinc	0.10
Titanium	0.20
Other	0.15
Aluminum remainder	

Mechanical Properties

Tensile Strength

27,000 PSI

Yield Strength

18,000 PSI

Elongation 8%

Physical Properties

Solidus	1065°F(574°C)	Density lbs./cu in	.097
Liquidus	1170°F(632°C)	Post Anodize Color	Gray

Recommended Welding parameters:

* **GMAW(MIG) PARAMETERS** (DC Reverse Polarity) Electrode Positive Spray transfer

<u>Metal Thickness</u>	<u>Wire Diameter</u>	<u>Amps</u>	<u>Volts</u>	<u>Argon(cfh)</u>
1/16"	.030	70-100	15-20	25
1/8"	.030-3/64	120-150	20-24	30
3/16"	.030-3/64	130-210	22-26	30-35
1/4"	3/64-1/16	170-225	24-28	40
3/8"	1/16	225-300	26-29	50

***GTAW(Tig) Parameters** (AC) ⁽¹⁾Hemisphere tip shape tungsten electrode

<u>Material</u>	⁽¹⁾ <u>Pure or ziconiated</u>	<u>Filler Wire Size</u>	<u>Amps</u>	<u>Volts ACHF</u>	<u>Gas Cup</u>	<u>Argon(cfh)</u>
1/16"	1/16"-3/32"	1/16"-3/32"	70-100	15	3/8	20
1/8"	1/8"-5/32"	1/8"-5/32"	125-175	15	7/16	20
3/16"	5/32"-3/16"	5/32"-3/16"	170-225	15	7/16-1/2	25
1/4"	3/16"-1/4"	3/16"	220-275	15	1/2	30
3/8"	1/4"	3/16"-1/4"	330-380	15	5/8	35
1/2"	1/4"	1/4"	400-500	25	5/8	35

***All parameters are suggested as basic guidelines and will vary.**

Weldcote Metals believes this data to be accurate and to reflect qualified expert opinion regarding current research. However, Weldcote Metals can not make any expressed or implied warranty as to this information.