



T H E H A R R I S P R O D U C T S G R O U P
A L I N C O L N E L E C T R I C C O M P A N Y
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TECHNICAL SPECIFICATION SHEET

5556 ALUMINUM WELD WIRE

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NOMINAL COMPOSITION:

Aluminum	BALANCE	Titanium	.05-.20 %
Magnesium	4.7-5.5 %	Copper	.10 % max.
Manganese	.50-.10 %	Chromium	.05-.20 %
Silicon	.25 % max.	Zinc	.25 % max.
Beryllium	.0008 % max.	Iron	.40% max.
Others	Each .05% max. Total .15% max		

PHYSICAL PROPERTIES:

Solidus	1065 °F (574 °C)	Density lbs/cu in	.096
Liquidus	1175 °F (635 °C)	Post Anodize Color	White
	As Welded Base Plate of 5456		
Tensile Strength	46,000 psi	Elongation in 2"	14%
Yield Strength	23,000 psi		

RECOMMENDED WELDING PARAMETERS:

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

Metal Thickness	Wire Diameter	Amps	Volts	Argon
1/16"	.030	70-110	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) Hemisphere tip shape tungsten electrode

Metal (1)	Pure or zirconiated	Filler Wire Size	Amps	Volts ACHF	Gas Cup	Argon (cfh)
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"	400-450	25	5/8	35

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* All parameters are suggested as basic guidelines and will vary depending on joint design, number of passes and other factors.

**SPECIFICATION COMPLIANCE: ANSI/AWS A5.10, ASME SFA 5.10, QQ-R-566B
Class R/ER 5356**

(2) QQ-R-566B = SILICON PLUS IRON SHALL NOT EXCEED .50 %

WARNING: PROTECT yourself and others. Read and understand this information.

FUMES AND GASES can be hazardous to your health.

ARC RAYS can injure eyes and burn skin.

ELECTRIC SHOCK can KILL.

- Before use, read and understand the manufacturer's instructions, Material Safety Data Sheets (MSDSs), and your employer's safety practices.
- Keep your head out of fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear, and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1, *Safety in Welding, Cutting, and Allied Processes*, published by the American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126; OSHA Safety and Health Standards, available from the U.S. Government Office, Washington, DC 20402

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