



**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  
 4501 Quality Place • Mason, OH 45040 U.S.A Tel: 513-754-2000 Fax: 513-754-6015

## TECHNICAL SPECIFICATION SHEET

### 5356 ALUMINUM WELD WIRE

#### STATEMENT OF LIABILITY- DISCLAIMER

Any suggestion of product applications or results is given without representation or warranty, either expressed or implied. Without exception or limitation, there are no warranties of merchantability or of fitness for particular purpose or application. The user must fully evaluate every process and application in all aspects, including suitability, compliance with applicable law and non-infringement of the rights of others. The Harris Products Group and its affiliates shall have no liability in respect thereof.

#### NOMINAL COMPOSITION:

Aluminum	BALANCE	Titanium	.06-.20 %
Magnesium	4.5-5.5 %	Copper	.10 % max.
Manganese	.05-.20 %	Chromium	.05-.20 %
Silicon	.25 % max.	Zinc	.10 % max.
Beryllium	.0008 % max.	Iron	.40% max.
Others	Each .05% max. Total .15 % max.		

#### PHYSICAL PROPERTIES:

Solidus	1060 °F (571 °C)	Density lbs/cu in	.096
Liquidus	1175 °F (635 °C)	Post Anodize Color	White
	As Welded Base Plate of 5086		
Tensile Strength	39,000 psi	Elongation in 2"	17%
Yield Strength	19,000 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

All statements, information and data given are believed to be accurate and reliable but are presented without guarantee, warranty or responsibility of any kind, expressed or implied.

Additional information available at our web site: [www.harrisproductsgroup.com](http://www.harrisproductsgroup.com)



\* 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

All statements, information and data given are believed to be accurate and reliable but are presented without guarantee, warranty or responsibility of any kind, expressed or implied.

Additional information available at our web site: [www.harrisproductsgroup.com](http://www.harrisproductsgroup.com)