



# TECHNICAL SPECIFICATION SHEET

HARRIS Products Group  
4501 QUALITY PLACE  
MASON, OHIO 45040  
TEL. (513) 754-2000  
FAX, (513) 754-8778  
www.harrisproductsgroup.com

## 5183 ALUMINUM WELD WIRE

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

### 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. Harris Products Group and its affiliates shall have no liability in respect thereof.

### NOMINAL COMPOSITION:

Aluminum	BALANCE	Titanium	.15% max.
Magnesium	4.3-5.2%	Copper	.10% max.
Manganese	.50-1.0%	Iron	.40% max.
Silicon	.40% max.	Zinc	.25% max.
Beryllium	.0008% max.	Chromium	.05-.25 %
Others	Each .05% max.	Total	.15% max.

### PHYSICAL PROPERTIES:

Solidus	1075°F(579°C)	Density lbs/cu in	.096
Liquidus	1180°F(579°C)	Post Anodize Color	White

As Welded Base Plate of 5083

Tensile Strength	43,000	Elongation in 2”	16%
Yield Strength	22,000		

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)

02/07 MK



## TECHNICAL SPECIFICATION SHEET

**HARRIS Products Group**  
4501 QUALITY PLACE  
MASON, OHIO 45040  
TEL. (513) 754-2000  
FAX, (513) 754-8778  
[www.harrisproductsgroup.com](http://www.harrisproductsgroup.com)

# 5183 ALUMINUM WELD WIRE

## 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	70-110	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) (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"	400-450	25	5/8	35

\* 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  
Class R/ER 5183**

Harris Products Group      Fax      513-754-8778  
4501 Quality Place      Tel.      513-754-2000  
Mason, Ohio 45040           800-733-4533

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)**

*02/07 MK*