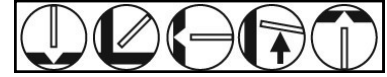


# Hobart® Maxal® 5183



AWS A5.10: ER5183, R5183

## WELDING POSITIONS:



### FEATURES:

- Very high strength (41 ksi typical)
- High ductility/toughness/fatigue strength
- Moderate ductility/formability
- Lower electrical conductivity and thermal conductivity

### BENEFITS:

- Excellent corrosion resistance when welding 5083 base material
- Higher column strength/better feedability
- Very good color match after anodizing with 5xxx/6xxx base materials

### APPLICATIONS:

- 5083 and lower strength alloys (40 ksi minimum UTS)
- Pressure vessels
- Shipbuilding
- Cryogenic tanks

**SHIELDING GAS:** 100% Argon (Ar) or Argon/Helium mixtures, typical: GMAW - 35-50 cfh (14-24 l/min), GTAW 20-30 cfh (10-14 l/min).

**TYPE OF CURRENT:** Direct Current Electrode Positive (DCEP) for GMAW, AC for GTAW

**STANDARD DIAMETERS:** 3/64" (1.2 mm)

**STORAGE:** Product should be stored in a dry, enclosed environment, and in its original intact packaging

### TYPICAL CHEMICAL VALUES\*:

Weld Metal Analysis (%)	ER & R 5183
Silicon (Si)	0.40
Iron (Fe)	0.40
Copper (Cu)	0.10
Manganese (Mn)	0.50-1.0
Magnesium (Mg)	4.3-5.2
Chromium (Cr)	0.05-0.25
Zinc (Zn)	0.25
Titanium (Ti)	0.15
Beryllium (Be)	<0.0003
Others Each	0.05
Others Total	0.15
Aluminum (Al)	Remainder

\*Unless noted-single values are maximums.

### TYPICAL PROPERTIES:

Melting Range	Density	Electrical/Thermal Conductivity
1075-1180°F	0.096 lbs/in <sup>3</sup>	29% IACS/810 EU

As Welded UTS Typical	Anodized Color	Elevated Temp. Applications +150°F
41 ksi	Clear/White	NO

\*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Hobart Brothers LLC expressly disclaims any liability incurred from any reliance thereon. Typical data are those obtained when welded and tested in accordance with AWS A5.10 specification. Other tests and procedures may produce different results. No data is to be construed as a recommendation for any welding condition or technique not controlled by Hobart Brothers LLC.

# Hobart® Maxal® 5183

Diameter		Base Material Thickness		Amps		Volts		Wire-Feed Speed (ipm)	
Inches	(mm)	Inches	(mm)	4xxx	5xxx	4xxx	5xxx	4xxx	5xxx
3/64	(1.2)	3/32	(2.4)	110	120	25	24	170	220
3/64	(1.2)	1/8	(3.2)	150	160	26	25	270	330
3/64	(1.2)	1/4	(6.4)	190	220	26	25	320	370
3/64	(1.2)	3/8	(9.5)	220	230	27	25	390	450

**Maintaining a proper welding procedure - including pre-heat and interpass temperatures - may be critical depending on the type and thickness of aluminum being welded.**

**See Above:** This information was determined by welding using 100%Argon shielding gas with a flow rate between 35-50 cfh (14-24 l/min).

**AVAILABLE DIAMETERS AND PACKAGES:** For a complete list of diameters and packaging, please contact Hobart Brothers at (800) 424-1543 or (937) 332-5188 for International Customer Service.

Diameter Inches (mm)	16-lb. (7.3 kg) Wire Basket	22-lb. (10 kg) Plastic Spool
Net Pallet Weight	1296-lb. (588 kg)	1782-lb. (808 kg)
3/64 (1.2)	518304712	518304712P22

## CONFORMANCES AND APPROVALS:

- AWS A5.10, ER5183, R5183
- ASME SFA 5.10, ER5183, R5183
- AWS A5.01 Class S1, Schedule F
- CWB, ER5183 (0.9 mm - 1.6 mm)
- ABS, ER5183, 100% Ar or Ar/He Mix (0.035" - 0.062")
- ABS, R5183, 100% Ar (0.062" - 0.187")
- vd TUV 1153

**TECHNICAL QUESTIONS?** For technical support of Hobart Filler Metals products, contact the Applications Engineering department by phone toll-free at 1-800-532-2618 or by e-mail at [Applications.Engineering@hobartbrothers.com](mailto:Applications.Engineering@hobartbrothers.com)

## CAUTION:

Consumers should be thoroughly familiar with the safety precautions on the warning label posted in each shipment and in the American National Standard Z49.1, "Safety in Welding and Cutting," published by the American Welding Society, 8669 NW 36th St., Miami, FL 33166 (can also be downloaded online at [www.aws.org](http://www.aws.org)); OSHA Safety and Health Standards 29 CFR 1910 is available from the U.S. Department of Labor, Washington, D.C. 20210

Safety Data Sheets on any Hobart Brothers LLC product may be obtained from Hobart Customer Service or at [www.hobartbrothers.com](http://www.hobartbrothers.com).

Because Hobart Brothers LLC is constantly improving products, Hobart reserves the right to change design and/or specifications without notice.

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