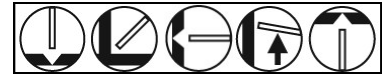


# Hobart<sup>®</sup> Maxal 5356



AWS A5.10: ER5356, R5356

**WELDING POSITIONS:**



**FEATURES:**

- High strength (38 ksi typical)
- High ductility/fatigue strength/very high toughness
- Moderate ductility/formability
- Lower electrical conductivity and thermal conductivity

**BENEFITS:**

- Higher column strength/better feedability
- Very good color match after anodizing with 5xxx/6xxx base materials

**APPLICATIONS:**

- 5086 and lower strength alloys (35 ksi minimum UTS)
- Truck frames
- Shipbuilding
- Rail cars/Bus panels

**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:** 0.030" (0.8 mm), 0.035" (0.9 mm), 0.040" (1.0 mm), 3/64" (1.2 mm), 1/16" (1.6 mm), 3/32" (2.4 mm), 1/8" (3.2 mm), 5/32" (4.0 mm), 3/16" (4.8 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 5356
Silicon (Si)	0.25
Iron (Fe)	0.40
Copper (Cu)	0.10
Manganese (Mn)	0.05-0.20
Magnesium (Mg)	4.5-5.5
Chromium (Cr)	0.05-0.20
Zinc (Zn)	0.10
Titanium (Ti)	0.06-0.20
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
1060-1175°F	0.096 lbs/in <sup>3</sup>	29% IACS/820 EU

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

\*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Hobart Brothers Company 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 Company.

# Hobart® Maxal 5356

Diameter		Base Material Thickness		Amps	Volts	Wire-Feed Speed
Inches	(mm)	Inches	(mm)	5xxx	5xxx	(ipm) 5xxx
0.035	(0.9)	1/16	(1.6)	100	21	350
0.035	(0.9)	1/8	(3.2)	140	22	450
0.035	(0.9)	1/4	(6.4)	180	23	600
3/64	(1.2)	3/32	(2.4)	120	24	220
3/64	(1.2)	1/8	(3.2)	160	25	330
3/64	(1.2)	1/4	(6.4)	220	25	370
3/64	(1.2)	3/8	(9.5)	230	25	450

**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	1-lb. Spool	12-lb. Basket	16-lb. Reel	16-lb. Plastic	16-lb. Basket	22-lb. Plastic	100-lb. Mini-Drum	300-lb. Drum	36-In Cut Length (1-lb)	36-In Cut Length (10-lb)
0.030 (0.8)	535603004	535603012								
0.035 (0.9)	535603504ML		535603512ML	535603512P			535603523L	535603523		
0.040 (1.0)					535604012					
3/64 (1.2)	535604704		535604712ML	535604712P	535604712	535604712P22	535604723L	535604723		
1/16 (1.6)				535606212P	535606212		535606223L	535606223		535606270
3/32 (2.4)				535609412P	535609412				535609471	535609470
1/8 (3.2)									535612571	535612570
5/32 (4.0)										535615670
3/16 (4.8)										535618770

## CONFORMANCES AND APPROVALS:

- AWS A5.10, ER5356, R5356
- ASME SFA 5.10, ER5356, R5356
- AWS A5.01 Class S1, Schedule F
- CWB
- ABS
- vd TUV
- DB

**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 Company product may be obtained from Hobart Customer Service or at [www.hobartbrothers.com](http://www.hobartbrothers.com).

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

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Revision Date: 160616 (Replaces 150707)

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