## Hobart<sup>®</sup> Maxal<sup>®</sup> 4043



AWS A5.10: ER4043, R4043

#### **WELDING POSITIONS:**



#### **FEATURES:**

- Moderate strength (28 ksi typical)
- · Low melting temperature/high fluidity
- · Low welding smut and discoloration
- · Low ductility, formability, and lower toughness
- Moderate electrical conductivity and thermal conductivity

## **BENEFITS:**

- · Excellent corrosion resistance
- · Low shrinkage rate/reduced distortion
- Low hot cracking sensitivity in most applications

#### APPLICATIONS:

- Welding 6xxx alloys
- · Sports products scooters/bicycles
- Automotive/motorcycle frames
- · General repair and maintenance

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)

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

## TYPICAL CHEMICAL VALUES\*:

Weld Metal Analysis (%)	ER & R 4043
Silicon (Si)	4.5-6.0
Iron (Fe)	0.8
Copper (Cu)	0.30
Manganese (Mn)	0.05
Magnesium (Mg)	0.05
Zinc (Zn)	0.10
Titanium (Ti)	0.20
Beryllium (Be)	<0.0003
Others Each	0.05
Others Total	0.15
Aluminum (AI)	Remainder

<sup>\*</sup>Unless noted-single values are maximums.

### **TYPICAL PROPERTIES:**

Melting Range	Density	Electrical/Thermal Conductivity		
1065-1170°F	0.097 lbs/in <sup>3</sup>	42% IACS/1050 EU		

As Welded UTS Typical	Anodized Color	Elevated Temp. Applications +150°F		
28 ksi	Gray	YES		

<sup>\*</sup>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.

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Diameter Inches (mm)		Base Material Thickness Inches (mm)		Amps 4xxx 5xxx		Volts 4xxx 5xxx		Wire-Feed Speed (ipm) 4xxx 5xxx	
0.035 0.035 0.035	(0.9) (0.9) (0.9)	1/16 1/8 1/4	(1.6) (3.2) (6.4)	90 130 170	100 140 180	23 24 25	21 22 23	300 400 500	350 450 600
3/64 3/64 3/64 3/64	(1.2) (1.2) (1.2) (1.2)	3/32 1/8 1/4 3/8	(2.4) (3.2) (6.4) (9.5)	110 150 190 220	120 160 220 230	25 26 26 27	24 25 25 25	170 270 320 390	220 330 370 450
1/16 1/16 1/16 1/16 1/16	(1.6) (1.6) (1.6) (1.6) (1.6)	1/4 3/8 1/2 3/4	(6.4) (9.5) (12.7) (19.1) (25.4)	200 230 260 280 300	210 240 270 290 310	26 27 28 29 30	24 25 26 27 28	170 200 240 260 280	200 230 270 300 320

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.

Diam Inches		. (		16-lb. (7.3 kg) Plastic Spool	16-lb. (7.3 kg) Wire Basket 22-lb. (10 kg) Plastic Spool		100-lb. (45 kg) Drum 300-lb. (136 kg) Drum		1-lb. (0.45 kg) Tube, 36-ln Long Cut Length TIG Rod	10-lb. (4.5 kg) Tube, 36-ln Long Cut Length TIG Rod
0.030	(8.0)	404303504	404303012	_	_	_	_	_	_	_
0.035	(0.9)	404303504	_	404303512P	404303512	_	_	404303523	_	_
0.040	(1.0)	_	_	_	404304012	_	_	_	_	_
3/64	(1.2)	404304704	_	404304712P	404304712	404304712P22	404304723L	404304723	_	_
1/16	(1.6)	_	_	_	404306212	404306212P22	404306223L	404306223	404306271	404306270
3/32	(2.4)	_	_	_	_	_	_	_	404309471	404309470
1/8	(3.2)	_	_	_	_	_	_	_	404312571	404312570
5/32	(4.0)	_	_	_	_	_	_	_	_	404315670

300 lb drum dimensions: diameter = 23-1/2"; height = 36" 100 lb drum dimensions: diameter = 23-1/2"; height = 18"

#### CONFORMANCES AND APPROVALS:

- AWS A5.10, ER4043, R4043
- **ASME SFA 5.10,** ER4043, R4043
- AWS A5.01 Class S1, Schedule F
- CWB, ER4043 (0.8 mm 1.6 mm)
- AMS 4190 (Chemistry Limits Only)
- 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 <a href="mailto:Applications.Engineering@hobartbrothers.com">Applications.Engineering@hobartbrothers.com</a>

#### 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); 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.

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

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