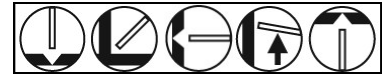


# Hobart<sup>®</sup> Maxal 4943



AWS A5.10: ER4943, R4943

## WELDING POSITIONS:



### FEATURES:

- 25% higher UTS & 50% higher yield strength than 4043 in the as welded condition (typical)
- Moderate/high strength (35 ksi typical)
- Low melting temperature/high fluidity
- Low welding spatter and discoloration
- Low ductility, formability and lower toughness (similar to 4043)
- Moderate electrical conductivity and thermal conductivity

### BENEFITS:

- Post weld fully heat treatable requiring no base metal dilution
- Excellent corrosion resistance
- Low shrinkage rate/reduced distortion
- Low hot cracking sensitivity in most applications

**APPLICATIONS:** Current 4043 and 4643 applications, welding 1xxx, 3xxx, 5xxx with less than 3.0% Mg (example 5052) & 6xxx series base metals

- Post weld age, post weld heat treat & age applications
- Aerospace hardware
- Ship decks
- Automotive/motorcycle frames
- Ladders and frames
- Furniture
- Sports products - scooters/bicycles
- Alloy 356 castings
- General repair and maintenance
- Wheels

**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:** 0.035" (0.9 mm), 3/64" (1.2 mm), 1/16" (1.6 mm)

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

### TYPICAL CHEMICAL VALUES\*:

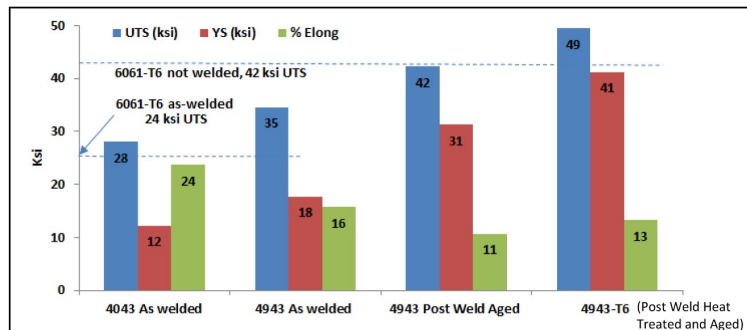
Weld Metal Analysis (%)	4943
Silicon (Si)	5.0-6.0
Iron (Fe)	0.40
Copper (Cu)	0.10
Manganese (Mn)	0.05
Magnesium (Mg)	0.30-0.50
Zinc (Zn)	0.10
Titanium (Ti)	0.15
Beryllium (Be)	<0.0003
Others Each	0.05
Others Total	0.15
Aluminum (Al)	Remainder

\*Unless noted-single values are maximums.

### TYPICAL PROPERTIES:

Melting Range	Density	Electrical/Thermal Conductivity
1065-1175°F	0.097 lbs/in <sup>3</sup>	41% IACS/1040 EU

**Tensile Strength Comparison, 4043 vs. 4943**  
(All weld metal, MIG welded, no base metal dilution<sup>1</sup>)



<sup>1</sup>Insufficient dilution can be a concern with alloy 4043, which can result in low weld strength. Alloy 4943 eliminates the need for base metal dilution to achieve good weld strength in as-welded, post weld aged and T6 condition.

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

\*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 4943

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

**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	1-lb. Spool	16-lb. Reel	22-lb. Plastic	100-lb. Mini-Drum	300-lb. Drum	36-In Cut Length (10-lb)
0.035 (0.9)	494303504	494303512		494303523L	494303523	
3/64 (1.2)	494304704	494304712	494304712P22	494304723L	494304723	
1/16 (1.6)		494306212	494306212P22	494306223L	494306223	494306270
3/32 (2.4)						494309470
1/8 (3.2)						494312570
5/32 (4.0)						494315670

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, ER4943, R4943
- ASME SFA 5.10, ER4943, R4943
- SFA 5.10
- CWB
- ABS

**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: 160609 (Replaces 150720)

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