

AWS E7014 (E4914\*)

**Hobart® 14A****DESCRIPTION:**

**Hobart 14A** is a versatile, all-position electrode that you can use with either AC or DC (electrode negative or electrode positive) power. It has a rutile base with an iron powder addition that serves to increase welder-appeal with its outstanding deposition rate and speed of travel. Hobart 14A also produces a weld bead that is excellent in both strength and appearance with slag coverage that is easy to remove.

**APPLICATIONS:**

Frames, heavy sheet metal, and machine bases.

**FEATURES:**

- Smooth, stable arc
- Iron powder added to coating
- Slag detaches easily
- All-position

**BENEFITS:**

- Easy to use, good control
- Increased deposition rate, faster travel
- Fast clean-up, good bead appearance
- Welds in the flat, horizontal, vertical and overhead positions

**TYPICAL WELD METAL PROPERTIES\*\*(Chem Pad):**

Weld Metal Analysis		AWS Spec (max)
Carbon (C)	0.06	not required
Manganese (Mn)	0.49	1.25
Phosphorus (P)	0.011	not required
Sulphur (S)	0.011	not required
Silicon (Si)	0.28	.90

**TYPICAL MECHANICAL PROPERTIES\*\*(AW):**

		AWS Spec (min)
Tensile Strength	81,000 psi (559 MPa)	70,000 psi
Yield Strength	73,000 psi (504 MPa)	58,000 psi
Elongation % in 2"	25%	17%
Reduction of Area	33% to 55%	not required

**TYPICAL CHARPY-V-NOTCH IMPACT VALUES\*\*(AW):**

Not applicable

**TYPE OF CURRENT:** AC, DCEP or DCEN

**CONFORMANCES AND APPROVALS:**

- AWS A5.1, E7014, ASME SFA5.1, F-3, A-1
- ABS E7014
- CWB E4914

\* CWB classification

NOTE: 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 A5.1 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.



## RECOMMENDED WELDING PROCEDURES:

<b>GENERAL:</b>	Electrode negative, work positive (DCEN); AC; or electrode positive, work negative (DCEP)
<b>ARC LENGTH:</b>	Short (1/8" or less)
<b>FLAT:</b>	Angle electrode 10-15° from 90° with higher heat than E6012 electrodes
<b>VERTICAL-UP:</b>	Use slight whipping or weaving technique
<b>VERTICAL-DOWN:</b>	Use higher amperage and faster travel, staying ahead of puddle
<b>OVERHEAD:</b>	Use slight whipping motion
<b>STORAGE:</b>	60°F to 100°F, (20° to 40°C) and below 50% relative humidity or holding oven @ 100° to 120°F (38° to 49°C)
<b>RECONDITIONING:</b>	250°F to 300°F, (121° to 149°C) for one hour @ temperature

## RECOMMENDED OPERATING PARAMETERS:

Diameter		Type of Power	Minimum Amps	Optimum* Amps	Maximum Amps
Inches	mm				
3/32	2.4	DCEN, AC or DCEP	70	80	90
1/8	3.2	DCEN, AC or DCEP	120	130	145
5/32	4.0	DCEN, AC or DCEP	140	200	210
3/16	4.8	DCEN, AC or DCEP	180	240	280

\*For out-of-position welding, reduce amperage shown by 15%.

## TYPICAL DEPOSITION DATA (at optimum):

Diameter		Type of Power	Amps	Volts	Deposition Rate lbs/hr	Deposition Efficiency*%
Inches	mm					
3/32	2.4	DCEN	80	18-22	1.49	64.8
1/8	3.2	DCEN	130	19-23	2.39	61.7
5/32	4.0	DCEN	200	20-24.5	3.91	60.7
3/16	4.8	DCEN	240	25-27	5.29	66.1

\*Allowance made for 2" stub loss included.

## AVAILABLE DIAMETERS AND PACKAGES:

Diameter		Length		5-lb. Plastic Pak	10-lb. Plastic Pak	50-Lb. Carton
Inches	mm	Inches	mm			
3/32	2.4	14"	355	S114232-045	S114232-089	S114232-031
1/8	3.2	14"	355	S114244-045	S114244-089	S114244-031
5/32	4.0	14"	355	S114251-045	S114251-089	S114251-031
3/16	4.8	14"	355	—	—	S114258-031

Material Safety Data Sheets on any Hobart Brothers Company product may be obtained from Hobart Customer Service.

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