7014

AWS E7014

REPLACES: 060116

100-E, INDEX: 100501

DESCRIPTION:

McKay's **7014** is a high-speed, general purpose iron powder electrode. It has an extremely stable arc and offers a greater range of usability than an E7024 electrode. Weld deposits are typically very flat and smooth with slag that is easy to remove.

APPLICATIONS:

Excellent for frames, heavy sheet metal and machine bases.

FEATURES	BENEFITS
• Slag detaches easily • Smooth, stable arc • All-Position	• Fast clean-up, good bead appearance • Easy to use • Welds in the flat, horizontal, vertical and overhead positions • Increased deposition rate, faster travel

TYPICAL WELD METAL PROPERTIES*(CHEM PAD):

WELD METAL ANALYSIS		AWS Spec
Carbon (C)	0.06	Not required
Manganese (Mn)	0.54	1.25 max
Phosphorus (P)	0.026	Not required
Sulphur (S)	0.013	Not required
Silicon (Si)	0.35	0.90 max

TYPICAL MECHANICAL PROPERTIES* (AS WELDED):

		AWS Spec
Tensile Strength	79,000 psi (545 MPa)	70,000 psi
Yield Strength	68,100 psi (470 MPa)	58,000 psi
Elongation % in 2"	27.5%	17.0%
Reduction of Area	33% to 55%	Not required

TYPICAL CHARPY V-NOTCH IMPACT VALUES* (AS WELDED):

Not applicable

CONFORMANCES AND APPROVALS:

· AWS Spec A5.1, Class E7014 · ASME SFA5.1, F-3, A-1, Class E7014
· ABS

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and McKay expressly disclaims any liability incurred from any reliance thereon. Typical data are 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 McKay.

McKay Welding Products · 400 Trade Square East Troy, OH 45373 USA · www.hobartbrothers.com
PH: (800) 424-1543 · FX: (800) 541-6607 · Outside USA, PH: (937) 332-5188 or FX: (937) 332-5898

7014

Recommended Welding Procedures:

General:	AC; electrode negative, work positive (DCEN); or electrode positive, work negative (DCEP)
Arc Length:	Short (1/8" or less)
Flat:	Angle electrode 10-15° from 90° with higher heat than E6012 electrodes
Vertical-Up:	Use slight whipping or weaving technique
Vertical Down:	Use higher amperage and faster travel, staying ahead of puddle
Overhead:	Use slight whipping motion
STORAGE:	110°F to 130°F), humidity below 50% should be avoided; at no time should This type of electrode be stored in an oven above 130°F
RECONDITIONING:	250°F to 300°F for one hour

Recommended Operating Parameters:

Diameter Inches	Diameter mm	Type of Power	Minimum Amps	Optimum* Amps	Maximum Amps
3/32	2.4	AC, DCEN or DCEP	79	80	90
1/8	3.2	AC, DCEN or DCEP	120	130	145
5/32	4.0	AC, DCEN or DCEP	140	200	210
3/16	4.8	AC, DCEN or DCEP	180	240	280

*For out of position welding, reduce amperages shown by 15%.

Typical Deposition Data (at optimum):

Diameter Inches	Diameter mm	Type of Power	Amps	Volts	Deposition Rate Lbs/hr	Deposition Efficiency*%
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 Inches	Diameter mm	Length Inches	Length mm	50-lb. Carton
3/32	2.4	14	355	S114232-Z31
1/8	3.2	14	355	S114244-Z31
5/32	4.0	14	355	S114251-Z31
3/16	4.8	14	355	S114258-Z31

Material Safety Data Sheets on any McKay product may be obtained from McKay Customer Service.

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