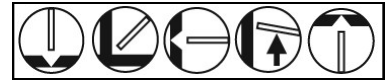


FabCO[®] 811A1



AWS A5.29: E81T1-A1C H8

WELDING POSITIONS:



FEATURES:

- Fast-freezing slag and good weldability
- Easy slag removal
- 1/2% Nominal molybdenum (Mo) weld deposit composition

BENEFITS:

- Good puddle control and bead contour when welding in all positions
- Reduces clean-up time, helps minimize risk of inclusions
- Maintains tensile and yield strength after stress-relief, or in applications where temperature-related "creep" is a concern

APPLICATIONS:

- Single or multi-pass welding
- Boiler system components
- 1/2% Nominal Mo castings & plates
- Certain applications requiring post-weld stress relief
- Power generation industries

SLAG SYSTEM: Fast-freezing, rutile-type, flux-cored wire

SHIELDING GAS: 100% Carbon Dioxide (CO₂), 35-50 cfh (17-24 l/min)

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

STANDARD DIAMETERS: 0.045" (1.2 mm)

RE-DRYING: Not recommended

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

TYPICAL WELD METAL CHEMISTRY* (Chem Pad):

Weld Metal Analysis (%)	100% CO ₂	AWS Spec
Carbon (C)	0.06	0.12
Manganese (Mn)	0.96	1.25
Silicon (Si)	0.32	0.80
Phosphorus (P)	0.012	0.030
Sulphur (S)	0.011	0.030
Molybdenum (Mo)	0.47	0.40-0.65

Note: AWS specification single values are maximums.

TYPICAL MECHANICAL PROPERTIES* [PWHT 1 Hr. @ 1150°F (630°C)]:

Mechanical Tests	100% CO ₂	AWS Spec
Tensile Strength	93,000 psi (641 MPa)	80,000-100,000 psi (550-690 MPa)
Yield Strength	82,000 psi (565 MPa)	68,000 psi (469 MPa) Minimum
Elongation % in 2" (50 mm)	25%	19% Minimum

TYPICAL CHARPY V-NOTCH IMPACT VALUES*: Not required

*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 the AWS A5.29 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		Weld Position	Amps	Volts	Wire-Feed Speed		Deposition Rate		Contact Tip to Work Distance	
Inches	(mm)				in/min	(m/min)	lbs/hr	(kg/hr)	Inches	(mm)
0.045	(1.2)	All Position	115	21	120	(3.0)	2.7	(1.2)	5/8	(16)
0.045	(1.2)	All Position	200	26	285	(7.2)	6.1	(2.8)	5/8	(16)
0.045	(1.2)	All Position	250	28	425	(10.8)	8.8	(4.0)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	275	28	440	(11.2)	9.5	(4.3)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	325	30	660	(16.8)	14.5	(6.6)	3/4	(19)

- **Maintaining a proper welding procedure - including pre-heat and interpass temperatures - may be critical depending on the type and thickness of steel being welded.**
- **See Above:** This information was determined by welding using 100% Carbon Dioxide (CO₂) shielding gas with a flow rate between 35-50 cfh (17-24 l/min).
- **All positions include:** Flat, Horizontal, Vertical Up, and Overhead.

STANDARD 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	33-lb. (15kg)
Inches (mm)	Spool
Net Pallet Weight	2376-lb. (1078kg)
0.045 (1.2)	S653212-029

CONFORMANCES AND APPROVALS:

- **AWS A5.29**, E81T1-A1C H8
- **AWS A5.29M**, E551T1-A1C H8
- **ASME SFA 5.29**, E81T1-A1C H8

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

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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