#### AWS A5.29: E111T1-K3C



### WELDING POSITIONS:

## BENEFITS:

- · Excellent arc stability
- Fast-freezing slagExcellent slag removal and low spatter
- · Increases usability and welder appeal
- Suitable for all-position welding
- · Reduces clean-up time, increases productivity

APPLICATIONS:

**FEATURES:** 

- High strength low-alloy steels
- Tensile strength requirements above 110,000 psi (760 MPa)
- Single and multi-pass welding

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

SHIELDING GAS: 100% Carbon Dioxide (CO<sub>2</sub>), 35-50 cfh (14-24 l/min)

**TYPE OF CURRENT:** Direct Current Electrode Positive (DCEP)

STANDARD DIAMETERS: 1/16" (1.6 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 <sub>2</sub>	AWS Spec
Carbon (C)	0.05	0.15
Manganese (Mn)	1.55	0.75-2.25
Silicon (Si)	0.40	0.80
Phosphorus (P)	0.011	0.030
Sulphur (S)	0.010	0.030
Molybdenum (Mo)	0.35	0.25-0.65
Nickel (Ni)	1.96	1.25-2.60

Note: AWS specification single values are maximums.

### TYPICAL MECHANICAL PROPERTIES\* (As Welded):

Mechanical Tests	100% CO <sub>2</sub>	AWS Spec
Tensile Strength	120,000 psi (827 MPa)	110,000-130,000 psi (760-900 MPa)
Yield Strength	102,000 psi (703 MPa)	98,000 psi (680 MPa) Minimum
Elongation % in 2" (50 mm)	17%	15% Minimum

### TYPICAL CHARPY V-NOTCH IMPACT VALUES\* (As Welded):

CVN Temperatures	100% CO₂	AWS Spec			
CVN @ 0°F (-18°C)	28 ft•lbs (38 Joules)	20 ft•lbs (27 Joules) Minimum			
CVN @ -40°F (-40°C)	23 ft•lbs (31 Joules)	Not specified			

\*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 A5.29 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 Company.

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Diam	eter	Weld Position	Amps	Volts		rox. ed Speed	Depo: Ra		Contact Work Di	
Inches	(mm)				(in/min)	(m/min)	(lbs/hr)	(kg/hr)	Inches	(mm)
1/16	(1.6)	All Position	175	23	130	(3.3)	3.9	(1.8)	1	(25)
1/16	(1.6)	All Position	225	24	150	(3.8)	5.1	(2.3)	1	(25)
1/16	(1.6)	All Position	275	26	235	(6.0)	8.3	(3.8)	1	(25)
1/16	(1.6)	Flat & Horizontal	350	29	335	(8.5)	13.5	(6.1)	1	(25)
1/16	(1.6)	Flat & Horizontal	400	32	420	(10.7)	17.1	(7.8)	1	(25)

 Maintaining a proper welding process, such as pre-heat, interpass temperature, and material thickness may be critical depending on the types of steel being welded.

• 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.

Diam	eter	60-lb. (27.2kg)
Inches	(mm)	Coil
0.0625	(1.6)	S655719-062

**CONFORMANCES AND APPROVALS:** 

- AWS A5.29, E111T1-K3C
- AWS A5.29M, E761T1-K3C
- ASME SFA 5.29, E111T1-K3C

**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 <u>Applications.Engineering@hobartbrothers.com</u>

#### 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 Company product may be obtained from Hobart Customer Service or at www.hobartbrothers.com.

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