

FabCO[®] 101K3



AWS A5.29: E100T1-K3C

WELDING POSITIONS:



FEATURES:

- Good arc characteristics (weldability)
- Slow-freezing slag optimized for in-position welding
- High-strength weld deposit with a versatile chemical composition

BENEFITS:

- Assists with consistently performing welds with good appearance and quality
- Provides improved operator appeal and weld appearance compared to all-position electrodes
- Suitable for a wide range of High-Strength Low-Alloy (HSLA) and Quench & Tempered (Q&T) steels of similar strength

APPLICATIONS:

- Single or multi-pass welding
- Heavy equipment
- 100ksi [690MPa] tensile strength High strength low-alloy (HSLA)
- ASTM A514 (>2" [50mm] thickness)
- 100ksi [690MPa] tensile-strength Quench & temper steels (Q&T) steels
- Structural fabrication
- ASTM A710

SLAG SYSTEM: Slow-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: 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 UNDILUTED WELD METAL CHEMISTRY*:

Weld Metal Analysis (%)	100% CO ₂	AWS Spec
Carbon (C)	0.043	0.15
Manganese (Mn)	1.27	0.75-2.25
Phosphorus (P)	0.014	0.03
Sulphur (S)	0.013	0.03
Silicon (Si)	0.74	0.80
Molybdenum (Mo)	0.43	0.25-0.65
Nickel (Ni)	2.29	1.25-2.60
Vanadium (V)	0.017	0.05

Note: AWS specification single values are maximums.

TYPICAL MECHANICAL PROPERTIES*:

Mechanical Tests	100% CO ₂	AWS Spec
Tensile Strength	107,500 psi (741 MPa)	100,000-120,000 psi (690-830 MPa)
Yield Strength	96,700 psi (667 MPa)	88,000 psi (610 MPa) Minimum
Elongation % in 2" (50 mm)	20%	16% Minimum

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

CVN Temperatures	100% CO ₂	AWS Spec
CVN @ 0°F (-18°C)	30 ft•lbs (41 Joules)	20 ft•lbs (27 Joules) Minimum

*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 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 Company.

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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)
1/16	(1.6)	Flat & Horizontal	200	24	150	(3.8)	5.4	(2.4)	3/4	(19)
1/16	(1.6)	Flat & Horizontal	350	29	345	(8.8)	11.9	(5.4)	3/4	(19)
1/16	(1.6)	Flat & Horizontal	400	32	480	(12.2)	15.9	(7.2)	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.**
- The above information was determined by welding using 100% CO₂ shielding gas with a flow rate between 35-50 cfm (17-24 l/min).

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		60-lb. (27.2kg) Coil
Inches	(mm)	
1/16	(1.6)	S282419-002

CONFORMANCE AND APPROVALS:

- **AWS A5.29**, E100T1-K3C
- **AWS A5.29M**, E690T1-K3C
- **ASME SFA 5.29**, E100T1-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 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

Material 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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