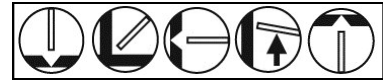


FabCO[®] 107G



AWS A5.29: E101T1-GC

WELDING POSITIONS:



FEATURES:

- Fast-freezing slag
- Easy slag removal
- Good impact toughness with tensile range of 100-110ksi (609-758 MPa)
- Maintains mechanical properties after stress relief
- Meets NACE MR0175 requirements for chemistry and hardness

BENEFITS:

- Excellent out-of-position capability
- Reduces clean-up time, minimizes risk of inclusions
- Resists cracking in severe applications
- Ideal for welding 4130 and 8630 steels with good impact toughness before and after PWHT

APPLICATIONS:

- HSLA steels
- Structural steels
- Quench and temper steels
- Offshore applications

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), 0.052" (1.4 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
Carbon (C)	0.07
Manganese (Mn)	1.40
Silicon (Si)	0.25
Phosphorus (P)	0.009
Sulphur (S)	0.01
Chromium (Cr)	0.05
Molybdenum (Mo)	0.26
Nickel (Ni)	0.76

Note: AWS specification single values are maximums.

TYPICAL DIFFUSIBLE HYDROGEN*:

Hydrogen Equipment	100% CO ₂
(GAS CHROMATOGRAPHY)	3.7 ml/100g

TYPICAL MECHANICAL PROPERTIES:

	As Welded (100% CO ₂)	PWHT at 1150°F for 2 Hours (100% CO ₂)	PWHT at 1150°F for 12 Hours (100% CO ₂)	AWS Spec
Tensile Strength	106 ksi (730 MPa)	102 ksi (703 MPa)	98 ksi (677 MPa)	100-120 ksi (690-830 MPa)
Yield Strength	97 ksi (668 MPa)	94 ksi (648 MPa)	92 ksi (634 MPa)	88 ksi (600 MPa) Minimum
Elongation % in 2"	21%	22%	23%	16%

TYPICAL MECHANICAL PROPERTY ON AISI 4130 STEEL PIPE:

	As Welded	PWHT at 1150°F for 2 Hours
Transverse Tensile Strength	111 ksi (765 MPa)	108 ksi (744 MPa)

*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.

FabCO[®] 107G

TYPICAL IMPACT TOUGHNESS PROPERTY:

	1G Plate As Welded	1G Plate PWHT at 1150°F for 2 Hours	1G Plate PWHT at 1150°F for 12 Hours	As Welded on AISI 4130 Pipe	PWHT at 1150°F for 2 hours on AISI 4130 Pipe
Average @-20°F (-29°C)	64 ft•lbs (86J)	38 ft •lbs (51J)	39 ft •lbs (53J)	52 ft •lbs (70J)	29 ft •lbs (39J)
Average @-40°F (-40°C)	52 ft•lbs (70J)			42 ft •lbs (56J)	

RECOMMENDED OPERATING PARAMETERS:

The information listed below was determined by welding performed with 100% CO₂ shielding gas at a flow rate range between 35 cubic feet per hour . Welding was performed in position designated below with DCEP welding current.

Diameter		Weld Position	Amps	Volts	Wire Feed Speed in/min	Deposition Rate lbs/hr	Stickout
Inches	mm						
0.045	(1.2)	Flat, Horizontal	230	27	430	5.5	3/4"
0.045	(1.2)	Vertical Up	190	24	300	4.0	3/4"
0.045	(1.2)	Overhead	200	25	350	4.5	3/4"
0.052	(1.4)	Flat, Horizontal	240	26	325	5.8	3/4"
0.052	(1.4)	Vertical Up	200	25	285	5.2	3/4"
0.052	(1.4)	Overhead	185	24	230	4.5	3/4"

CONFORMANCES AND APPROVALS:

- **AWS A5.29**, E101T1-GC
- **AWS A5.29M**, E691T1-GC
- **ASME SFA 5.29**, E101T1-GC
- **ABS**, 100% CO₂, E101T1-GC

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 36 St, # 130, Doral, FL 33166-6672 (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.

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

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Revision Date: 140821 (Replaces 100114)
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