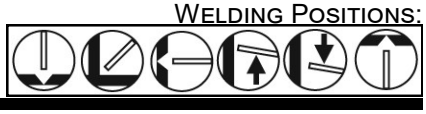
FabCO® XTREME® 85

AWS A5.29: E81T5-Ni2 C H4

WELDING POSITIONS:



FEATURES:	BENEFITS
• Highly deoxidizing slag system	• Very tolerant of primer and coatings without porosity
• Ability to produce very small leg fillet welds in all positions	• Less distortion and over-welding
• High impact toughness and low hydrogen weld deposits	• Superior properties and weld soundness

APPLICATIONS:

- Shipbuilding
- Bridges
- Onshore Pipe
- Tanks
- Machinery
- Heavy Equipment
- Piping

SLAG SYSTEM: Fast-freezing, highly basic
SHIELDING GAS: 100% Carbon Dioxide (CO2), 35-40 cfh (17-19 l/min)
TYPE OF CURRENT: Direct Current Electrode Negative (DCEN)
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 CHEMICAL COMPOSITION* (Chem Pad):

Weld Metal Analysis (%)	100% CO_2	AWS Spec.
Carbon (C)	0.07	0.12
Manganese (Mn)	0.83	1.50
Silicon (Si)	0.12	0.80
Phosphorus (P)	0.005	0.030
Sulphur (S)	0.007	0.030
Nickel (Ni)	2.30	1.75—2.75
Chromium (Cr)	0.03	Not Specified
Aluminum (Al)	0.35	Not Specified

Note: AWS Specification single values are maximums

TYPICAL WELD METAL DIFFUSIBLE HYDROGEN*:

Hydrogen Equipment	100% CO_2	AWS Spec.
(GAS CHROMOTOGRAPHY)	2.9 ml/100 g	4 ml/100 g Maximum

TYPICAL MECHANICAL PROPERTIES* [PWHT 1 Hr. @ 1125°F (607°C)]:

Mechanical Tests	100% CO_2	AWS Spec.
Tensile Strength	84,500 psi (582 MPa)	80,000—100,000 psi
Yield Strength	70,000 psi (482 MPa)	68,000 psi (470 MPa) Min.
Elongation % in 2” (50 mm)	25%	19% 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 LLC.

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Typical Charpy V-Notch Impact Values [PWHT 1 Hr. @ 1125°F (607°C)]*:

CVN Temperatures	100% CO_2	AWS Spec.
Avg. @ -75°F (-60°C)	75 ft-lbs (101 Joules)	20 ft-lbs (27 Joules) Minimum

Typical Operating Parameters*:

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)
0.052	(1.4)	All Position	160	17.5	105	(2.7)	3.0	(1.4)	5/8	(16)
0.052	(1.4)	All Position	175	19.0	130	(3.3)	3.8	(1.7)	5/8	(16)
0.052	(1.4)	All Position	205	20.0	150	(3.8)	4.2	(1.9)	5/8	(16)
0.052	(1.4)	Flat & Horizontal	250	21.0	200	(5.1)	5.8	(2.6)	3/4	(19)
0.052	(1.4)	Flat & Horizontal	270	22.0	230	(5.8)	6.5	(3.0)	3/4	(19)

- **Maintaining a proper welding procedure - including pre-heat and interpass temperatures - may be critical depending on the type and thickness of the steel being welded.**
- **See Above:** This information was determined by welding using 100% CO_2 shielding gas with a flow rate between 35-50 cfh (17-24 l/min).
- **All positions include:** Flat, Horizontal, Vertical Up, Vertical Down, and Overhead

Available Diameters and Packages: For a complete list of diameters and packaging, please contact Hobart Brothers at (800) 424-1543 or (937) 332-5188

Diameter Inches	(mm)	10-lb. (4.5 kg) Spool
Net Pallet Weight		1920-lb. (871 kg)
0.052	(1.4)	S290315-032

Conformances And Approvals

- **AWS A5.29,** E81T5-Ni2 C H4

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, Miami, 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

Safety Data Sheets on any Hobart Brothers LLC 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.

Revision Date: 231004 (Replaces 220523)

HOBART FILLER METALS