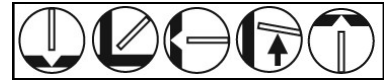


FabCO[®] 881K2



AWS A5.29: E81T1-K2MJ H8
EN ISO 17632-A: T46 6 1.5Ni P M21 2 H5

WELDING POSITIONS:



FEATURES:

- Fast freezing slag
- CTOD exceeds 0.25 mm at -10°C
- Excellent CVN toughness at -60°C (-76°F) in both the as welded and stress-relieved conditions
- Low diffusible hydrogen electrode

BENEFITS:

- Suitable for welding out of position
- Provides good fracture toughness
- Minimizes risk of cracking in severe applications
- Assists in minimizing risk of hydrogen-induced cracking

APPLICATIONS:

- Non-alloyed and fine grain steels
- High-strength low-alloy steels
- Offshore applications
- Shipbuilding

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

SHIELDING GAS: 75-80% Argon (Ar)/Balance Carbon Dioxide (CO₂), 35-50 cfh (14-24 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 (%)	80% Ar/20% CO ₂	AWS Spec
Carbon (C)	0.06	0.15
Manganese (Mn)	1.23	0.50-1.75
Silicon (Si)	0.29	0.80
Phosphorus (P)	0.009	0.030
Sulphur (S)	0.015	0.030
Molybdenum (Mo)	0.01	0.35
Nickel (Ni)	1.52	1.00-2.00

Note: AWS specification single values are maximums.

TYPICAL DIFFUSIBLE HYDROGEN*:

Hydrogen Equipment	80% Ar/20% CO ₂	AWS Spec
(GAS CHROMATOGRAPHY)	4.0 ml/100 g	8.0 ml/100 g Maximum

TYPICAL MECHANICAL PROPERTIES* (As Welded):

Mechanical Tests	80% Ar/20% CO ₂	AWS Spec
Tensile Strength	96,000 psi (662 MPa)	80,000-100,000 psi (550-690 MPa)
Yield Strength	86,000 psi (593 MPa)	68,000 psi (470 MPa) Minimum
Elongation % in 2" (50 mm)	21%	19% Minimum

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

CVN Temperatures	80% Ar/20% CO ₂	AWS Spec
CVN @-40°F (-40°C)	66 ft•lbs (89 Joules)	20 ft•lbs (27 Joules) Minimum "J" Requirement
CVN @-76°F (-60°C)	53 ft•lbs (71 Joules)	Not specified

*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.

FabCO® 881K2

Diameter Inches (mm)	Weld Position	Amps	Volts	Approx. Wire Feed Speed		Deposition Rate		Contact Tip to Work Distance	
				(in/min)	(m/min)	(lbs/hr)	(kg/hr)	Inches	(mm)
0.045 (1.2)	All Position	100	22	135	(3.4)	2.7	(1.2)	3/4	(19)
0.045 (1.2)	All Position	150	23	220	(5.6)	4.9	(2.2)	3/4	(19)
0.045 (1.2)	All Position	200	24	325	(8.3)	7.4	(3.4)	7/8	(22)
0.045 (1.2)	Flat and Horizontal	250	27	470	(11.9)	10.5	(4.8)	7/8	(22)
0.045 (1.2)	Flat and Horizontal	300	29	530	(13.5)	14.1	(6.4)	7/8	(22)

- **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.**
- **See Above:** This information was determined by welding using 75% Ar/25% CO₂ shielding gas with a flow rate between 35-50 cfh (14-24 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 Inches (mm)	33-lb. (15kg) 12" (305 mm) Fiber Spool
0.045 (1.2)	S284812-029

CONFORMANCES AND APPROVALS:

- **AWS 5.29:** E81T1-K2MJ H8
- **AWS A5.29M,** E551T1-K2MJ H8
- **ASME SFA 5.29,** E81T1-K2MJ H8
- **ABS,** 80% Ar/20% CO₂, E81T1-K2MJ H8
- **Bureau Veritas,** 75-80% Ar/Balance CO₂, S5Y42M
- **DNV-GL,** 75-80% Ar/Balance CO₂, V Y42MS (H10)
- **EN ISO 17632-A:** T46 6 1.5Ni P M21 2 H5
- **CE Marked** per CPR 305/2011
- **Lloyd's Register,** 80% Ar/20% CO₂, 4Y42S H10

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 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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